

JVC

SERVICE MANUAL

CD PORTABLE SYSTEM

PC-X100J



Area suffix

J U.S.A.

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1 Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer or responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by (Δ) on the schematic diagram and Parts List in Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List in Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.

When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).

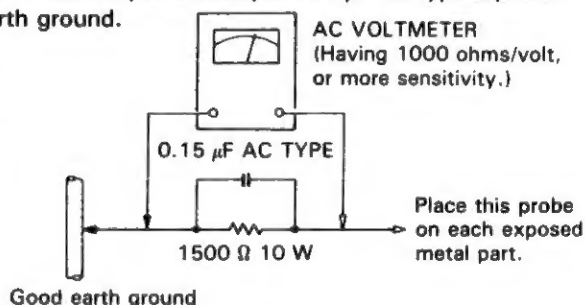
• Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).

This corresponds to 0.5 mA AC (r.m.s.).

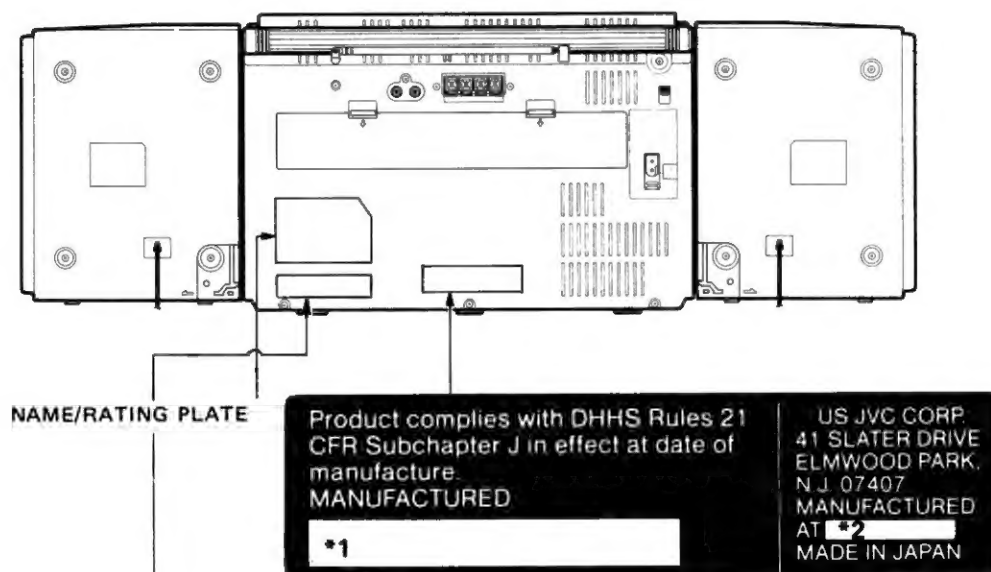


2 Safety Precautions about PC-X100

Important for Laser Products (For U.S.A. only)

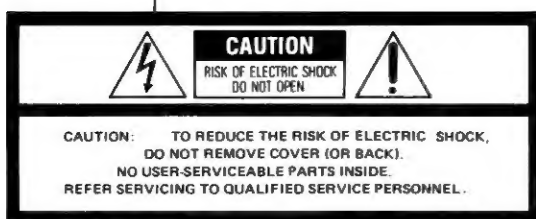
1. CLASS 1 LASER PRODUCT
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION: Do not open the bottom cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. CAUTION: The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the disc holder is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
6. CAUTION: The laser is able to function, if safety switches are out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

Identification Label and Certification Label



Notes:

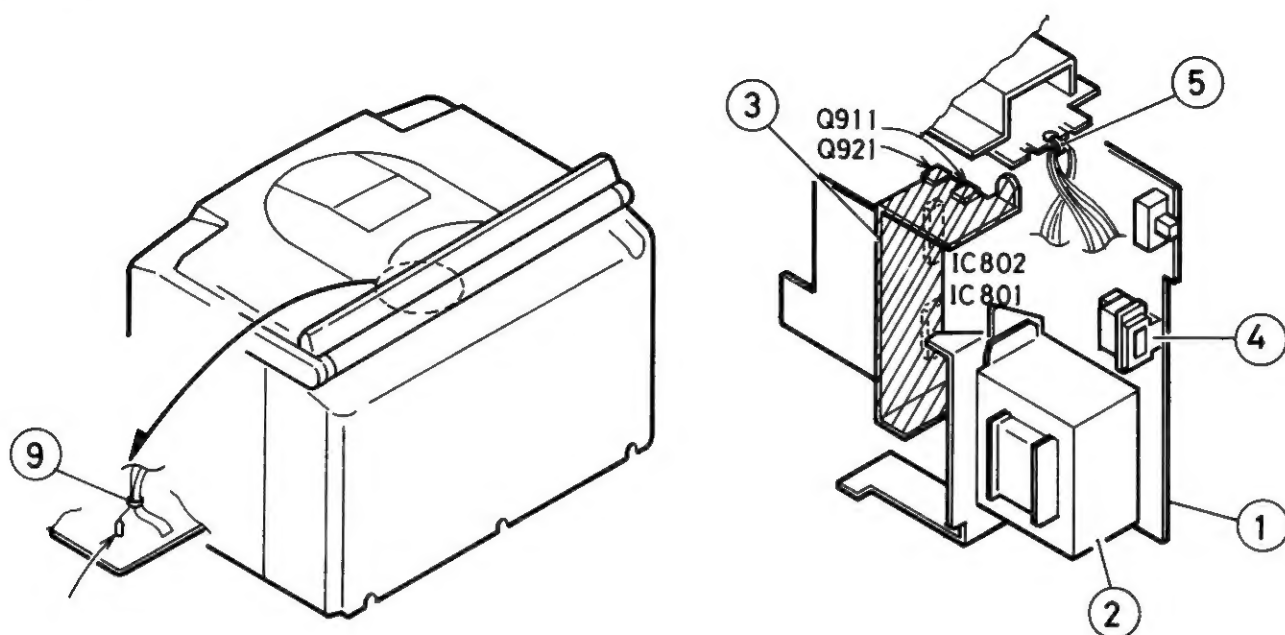
- *1 The date of manufacture.
- *2 The ID code of manufacturing plant.



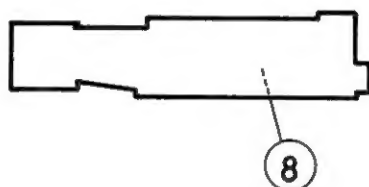
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



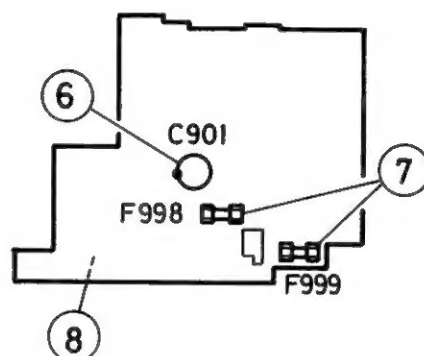
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



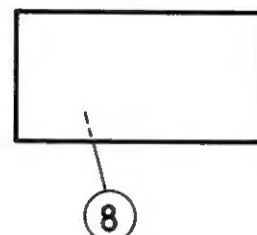
CD SW Board



Amp Board



Tuner Board



1. In order to maintain the gap between the circuit board's primary circuit pattern and the adjacent primary circuit, make sure that there is no protruding solder on the soldering round.
2. Confirm that the approval No. of the power transistor is J-71F032HD, and to prevent the patterns from getting lost, check that there is no looseness in the circuit board fixation screw.
3. As the heat sink, IC801, 802 and Q911, Q921 are heat producing parts, make sure that wires and the E cap do not come in contact with them.
4. Confirm that the AC socket is provided with the number J-HSC1494, and that the pattern is well fixed.

5. Make sure that all parts producing heat are clamped properly.
6. Make sure that 4700 μ F, 25 V is used for C901.
7. The rated PCB indication and the mark of the fuse cap are as follows.

Symbol No.	PCB indication	Fuse mark
F998	5 A / 125 V	UL 125 V / 5 A
F999	600 mA / 250 V	UL 600 mA / 250 V

8. Make sure that all support parts are bonded and fixed with spacers.

3 Features

1. **Portable system incorporating multi-function CD player.**
 - CD player with program play of up to 20 tunes/repeat play/random play/intro play function.
 - Digital LCD (Liquid Crystal Display) indicates the playback time of each tune and the number and total playback time of programmed tunes.
 - 8-cm (3-3/16") "CD singles" capability.
2. **Synchro-record start for CD recording convenience.**
3. **Double-cassette mechanism (Deck A for recording and playback, Deck B for playback).**
 - Metal and CrO₂ tape can be played back, for superior tone quality.
 - Synchro start dubbing function (normal/high-speed dubbing).
 - Relay playback (from Deck B to Deck A).
 - Full auto-stop mechanism.
4. **Hyper-Bass Sound system with 3D super woofer.**
5. **CD OUT jacks.**

4 Specifications

Compact disc player section

Type	: Compact disc player
Signal detection system	: Non-contact optical pickup (semiconductor laser)
Number of channels	: 2 channels (stereo)
Frequency response	: 20 Hz — 20,000 Hz
Signal-to-noise ratio	: 76 dB
Wow & flutter	: Less than measurable limit

Radio section

Frequency ranges	: FM 88 — 108 MHz AM 540 — 1,700 kHz
Antennas	: Telescopic antenna for FM Ferrite core antenna for AM

Tape deck section

Track system	: 4-track 2-channel stereo
Motor	: Electronic governor DC motor for capstan
Heads	: Deck A; Hard permalloy head (for recording/playback), Permalloy head for erasure Deck B; Hard permalloy head for playback

Frequency response	: 40 — 14,000 Hz (with normal tape/normal speed)
Wow & flutter	: 0.15 % (WRMS)
Fast wind time	: Approx. 120 sec. (C-60 cassette)

General

3D system	: ASW (Acoustic Super Woofer)
Power output	: 3 watts per channel, min. RMS, at 6 ohms from 200 Hz to 15 kHz and 6 watts for 3D, min. RMS, at 8 ohms from 50 Hz to 150 Hz, with no more than 10 % total harmonic distortion
S.E.A. characteristics	: S.E.A. center frequencies: 100 Hz/1 kHz/10 kHz S.E.A. control range: ± 8 dB

Output terminals	: CD OUT x 2 1.0 V/47 k Ω Speaker x 2 (matching impedance 6 — 16 Ω) PHONES x 1 (Output level: 0 — 15 mW/32 Ω , Matching impedance: 16 Ω — 1 k Ω)
Power supply	: AC 110 — 120 V/220 — 240 V, 50/60 Hz DC 12 V (8 "D" batteries)
Power consumption	: 35 W (with POWER SW ON) 2.1 W (with POWER SW STANDBY)
Dimensions	: 676 (W) x 235 (H) x 248 (D) mm (26-5/8" x 9-5/16" x 9-13/16") including knobs
Weight	: Approx. 7.3 kg (16.1 lbs) (without batteries) Approx. 8.1 kg (17.9 lbs) (with batteries)

Speaker Section (each unit)

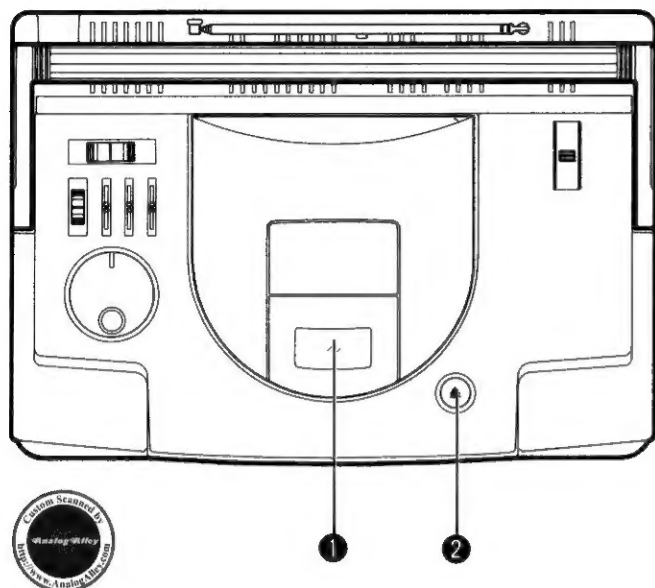
Speakers	: 10 cm (3-15/16") x 1
Impedance	: 6 Ω
Dimensions	: 170 (W) x 204 (H) x 192 (D) mm (6-3/4" x 8-1/16" x 7-9/16")
Weight	: Approx. 0.96 kg (2.2 lbs)

Design and specifications are subject to change without notice.

5 Instruction Book

NAMES OF PARTS AND THEIR FUNCTIONS

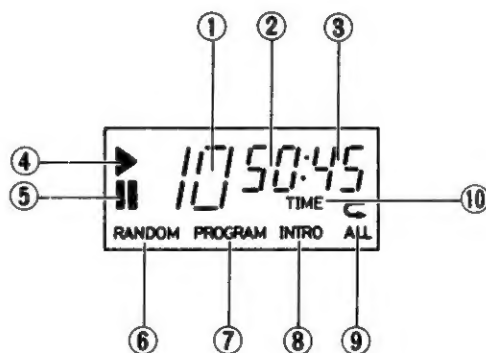
• Top panel



- ① Disc holder
② Disc holder open button (PUSH OPEN) (▲)

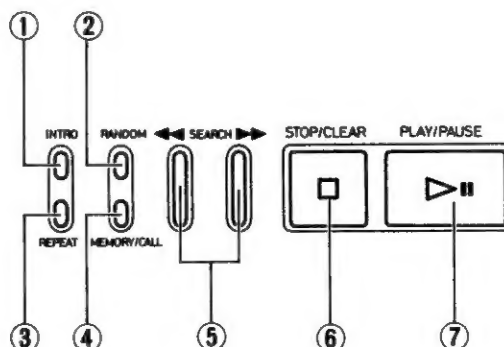
③ Display window (CD player section)

- ① Track (tune) number display
② Program order number/Time (minute) display
③ Time (second) display
④ Playback indicator (►)
⑤ Pause indicator (||)
⑥ RANDOM playback indicator
⑦ Program mode indicator (PROGRAM)
⑧ INTRO scan indicator
⑨ Repeat playback indicator (⇐ ALL)
⑩ TIME mode indicator

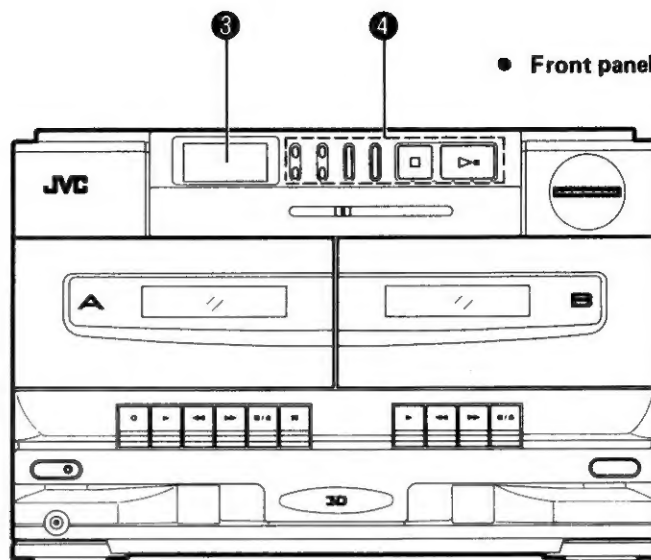


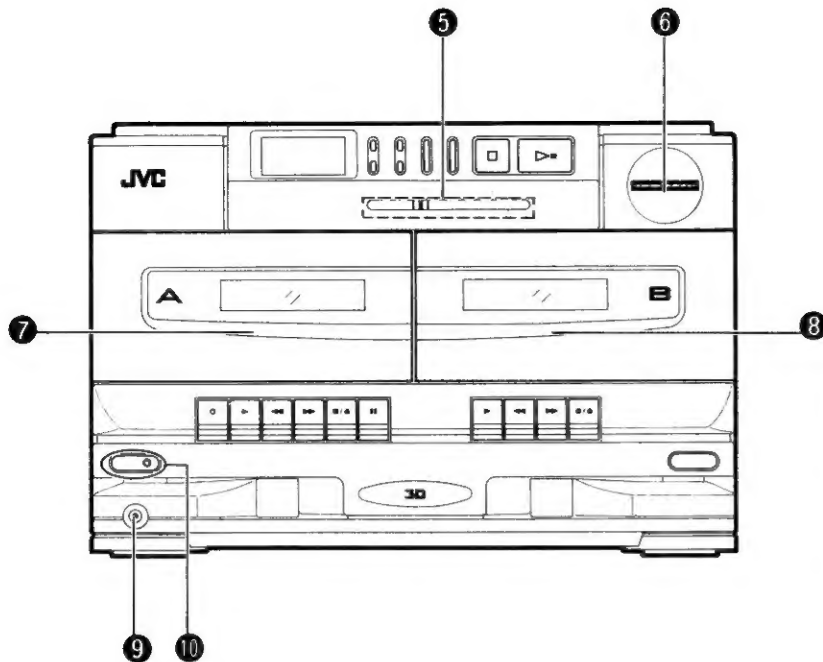
④ CD operation buttons

- ① INTRO scan button
② RANDOM button
③ REPEAT button
④ MEMORY/CALL button
⑤ SEARCH (◀▶) button
⑥ STOP/CLEAR (□) button
⑦ PLAY/PAUSE (►||) button

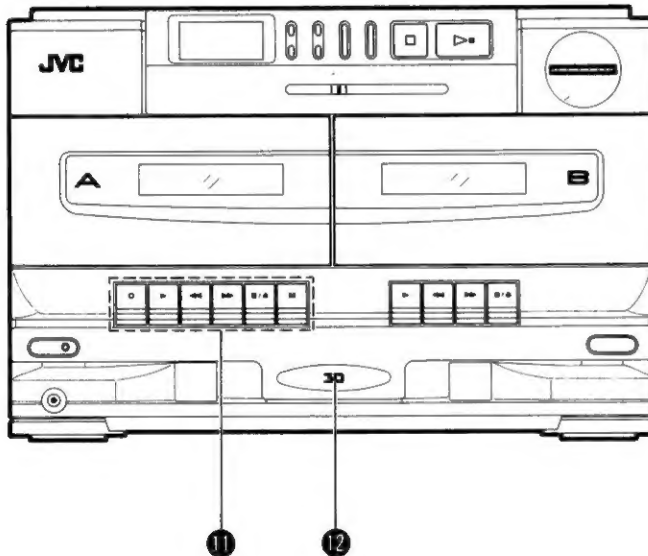


• Front panel

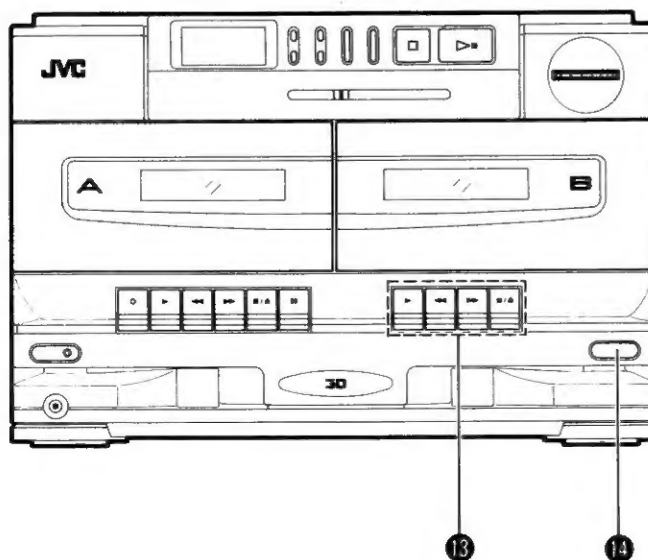




- 5 Dial scale
- 6 TUNING knob
- 7 Cassette holder (Deck A)
- 8 Cassette holder (Deck B)
- 9 PHONES jack (3.5 mm dia. stereo mini)
Connect headphones (impedance $16\ \Omega - 1\ k\Omega$) to this jack. The speakers are automatically switched off with the headphones connected.
- 10 POWER switch and indicator

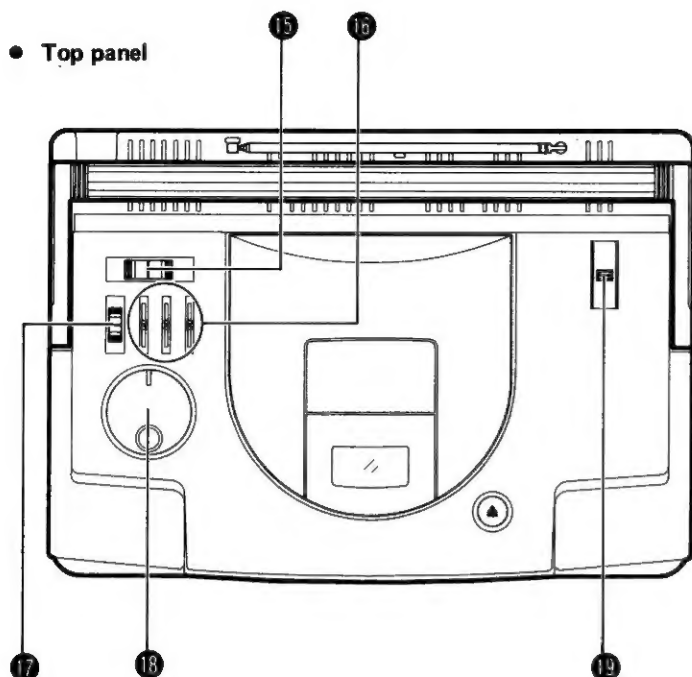


- 11 Cassette operation buttons (Deck A)
 - REC:
Press this button with the ► PLAY button to start recording.
 - PLAY:
Press to play the tape.
 - ◀ REW:
Press to rewind the tape rapidly.
 - FF:
Press to wind the tape forward rapidly.
 - /▲ STOP/EJECT:
Press to stop the tape. Pressing this button after the tape stops opens the cassette holder.
 - || PAUSE:
Press to stop the tape temporarily. Press again to release the pause mode.
- 12 Hyper-Bass Sound (3D) indicator



- 13 Cassette operation buttons (Deck B)
 - PLAY:
Press to play the tape.
 - ◀ REW:
Press to rewind the tape rapidly.
 - FF:
Press to wind the tape forward rapidly.
 - /▲ STOP/EJECT:
Press to stop the tape. Pressing this button after the tape stops opens the cassette holder.
- 14 HYPER-BASS switch
 - ON:
Set to this position to listen to the Hyper-Bass sound.
 - OFF:
Set to this position when the Hyper-Bass sound is not required.
- This function does not work while headphones are being used.

● Top panel



15 **FUNCTION switch**

TAPE-NORMAL SPEED DUBBING

Set to this position to listen to a cassette or dub at normal speed.

TAPE-HIGH SPEED DUBBING

Set to this position to dub at high speed.

TUNER

Set to this position when listening to or recording from the radio.

CD

Set to this position when listening to or recording from a CD.

16 **3-BAND GRAPHIC EQUALIZER controls**

17 **TAPE (PLAYBACK) switch**

Set this switch according to the type of tape to be used.

METAL-CrO₂: (playback only)

Set to this position to listen to a metal (type IV) or chrome (type II) tape.

NORMAL:

Set to this position to listen to a normal (type I) tape.

18 **VOLUME control**

19 **BAND switch**

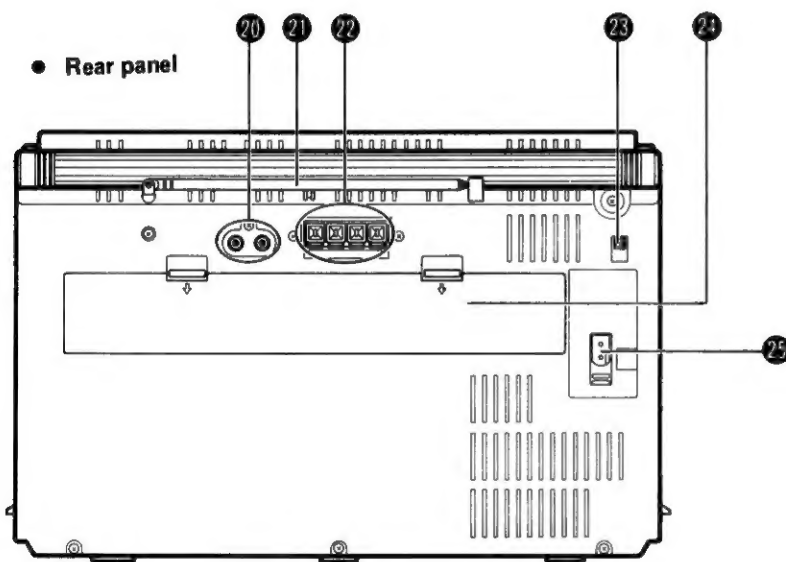
AM: Set to this position to listen to or record an AM broadcast.

FM STEREO: Set to this position to listen to or record an FM stereo broadcast.

FM MONO: Set to this position when FM stereo reception is obscured by noise.



● Rear panel



20 **CD OUT jacks**

Connect to another stereo amplifier, etc. to listen to the CD sound from other equipment.

21 **Telescopic antenna for FM reception.**

22 **SPEAKER terminals**

Connect the provided speakers to these terminals.

23 **BEAT CUT switch**

(See page 34.)

24 **Battery compartment cover**

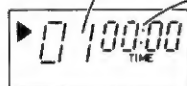
25 **VOLTAGE SELECTOR/AC IN (AC input) jack (PC-X100J)**

AC IN (AC input) jack (PC-X100C)

PLAYING COMPACT DISCS

Entire tune playback . . . The following example shows using a compact disc which contains 10 tunes and a total playback time of 50 minutes, 45 seconds.

Track (tune) number.



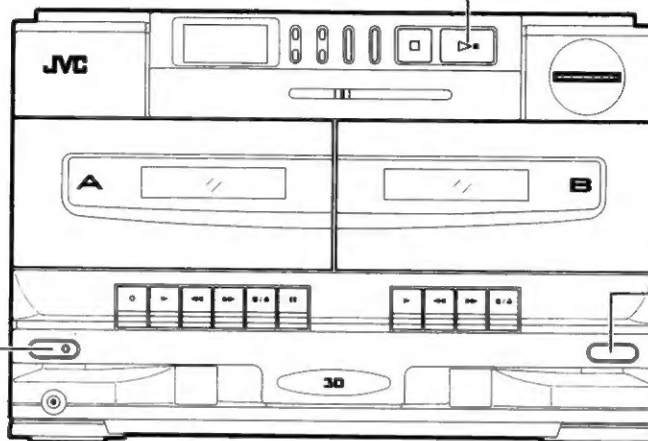
Displays elapsed playback time of each tune being played back.

Operate in order shown.

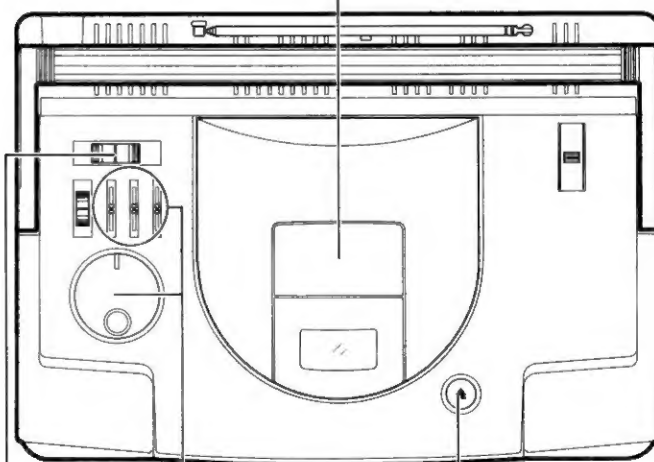
- 5 Press to start the playback. The track (tune) number and playback time are displayed.

- 1 Set to ON.

Set the HYPER-BASS switch as required.



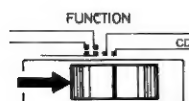
- 3 Load a disc with the label side facing up. Close the disc holder.



- 4 Set to CD.

The disc starts rotating and the total number of track (tune) and total playback time are displayed.

- 2 Press to open the disc holder.



Total playback time.
10:50:45
TIME
Total number of track (tune).

- 6 Adjust.

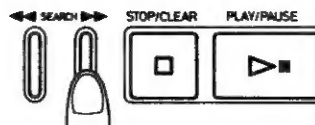


Skip playback

- During playback, when skipping to the beginning of the next tune or the tune being played back or the previous tune, the beginning of the tune is easily located and the playback starts from there.

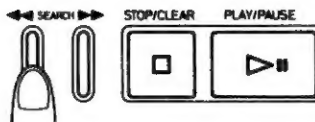
To listen to the next tune . . .

Press the ►► button once to skip to the beginning of the next tune.



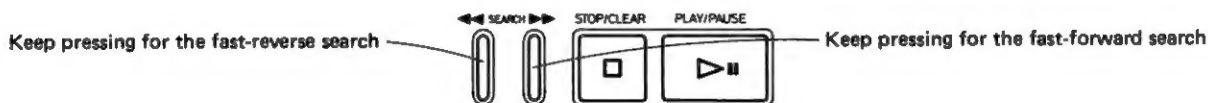
To listen to the previous tune . . .

Press the ◀◀ button to skip to the beginning of the tune being played back and press again to skip to the previous tune.



Search playback (to locate the required position on the disc)

- The required position can be located using fast-forward or reverse search during playback.

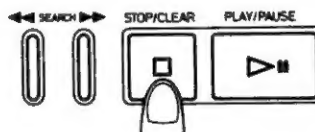


- Hold down the button and the search playback starts slowly and then gradually increases speed.
- Since a small sound (about one quarter of playback level) can be audible in both modes, release the button when the required position is located while monitoring the sound.

To stop playback

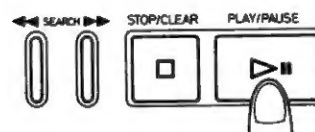
• To stop in the middle of a disc

During programmed playback, press the ◻ STOP/CLEAR button once to stop playback; press again to cancel the program.



• To stop a disc temporarily

Press the ▷◻ PLAY/PAUSE button to stop a disc temporarily. When pressed again, playback resumes from the point where pause was engaged.



Caution:

When changing discs, press the ◻ STOP/CLEAR button; check that the disc has stopped rotating completely before unloading it.

Notes:

- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down. In such a case, check the disc and insert again and clean or change the disc.
- Do not use the unit at excessive high or cold temperatures. The recommended temperature range is 5°C (41°F) to 35°C (95°F).
- After playback, unload the disc and close the disc holder.
- If mistracking occurs during playback, lower the volume.
- Mistracking may occur if the unit is given a strong impact or is used in a place which is subject to vibrations (i.e. in a car travelling on a rough road).

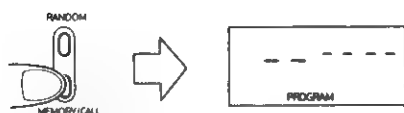


Programmed playback

• Up to 20 tunes can be programmed.

When there are less than 20 tunes on a disc, the total playback time of programmed tunes is displayed (up to 99 minutes, 59 seconds).

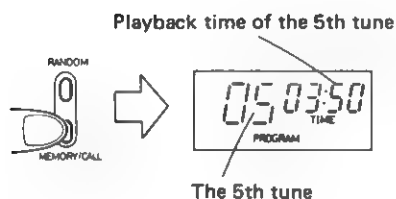
①



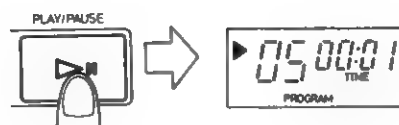
②



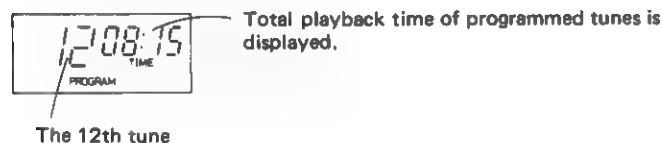
③



④



When programming the 12th tune.



- ① Press the MEMORY/CALL button to set to the programming mode.
- ② Press to designate the required track number.
• To count down the track number, press the ◀◀ button.
- ③ Press the MEMORY/CALL button to program the track (tune) number.
• Repeat steps ② and ③ to program other tunes.
- ④ Press the ▶■ PLAY/PAUSE button when programming is completed. Programmed playback starts.

To clear programmed tunes

Press the □ STOP/CLEAR button before playback. During programmed playback, press this button twice. When the disc holder is opened, the programmed tunes are automatically cleared.

To confirm the details of programmed tunes

When the MEMORY/CALL button is pressed, the details of programmed tunes are displayed in the programmed order.



INTRO-scan operation

- Just press to play the first 10 seconds of each tune. The operation is released after playing the introductory sections of all tunes or all programmed tunes.
- If the INTRO-scan button is pressed in the middle of a tune, the intro scan operation will start from the next tune.
- To release the intro scan mode, press the INTRO-scan button again and normal playback (or programmed playback) will start.



Repeat playback

Press the REPEAT button before or during playback. A single tune or all the tunes can be repeated.

A single tune and all the tunes can be specified separately. Each time the REPEAT button is pressed, the mode will be changed from a single tune (☞) to all the tunes (☞ ALL) to the clear mode, in this order.



• Repeat playback of a single tune (☞)

The tune being played back can be heard repeatedly.

The 5th tune



• Repeat playback of all the tunes (☞ ALL)

When playing back the entire disc or programmed tunes, all the tunes or the programmed tunes can be heard repeatedly.



Random playback

When the RANDOM button is pressed, every tune in a disc is played back once, in random order.



CASSETTE PLAYBACK

(The example shows deck A)

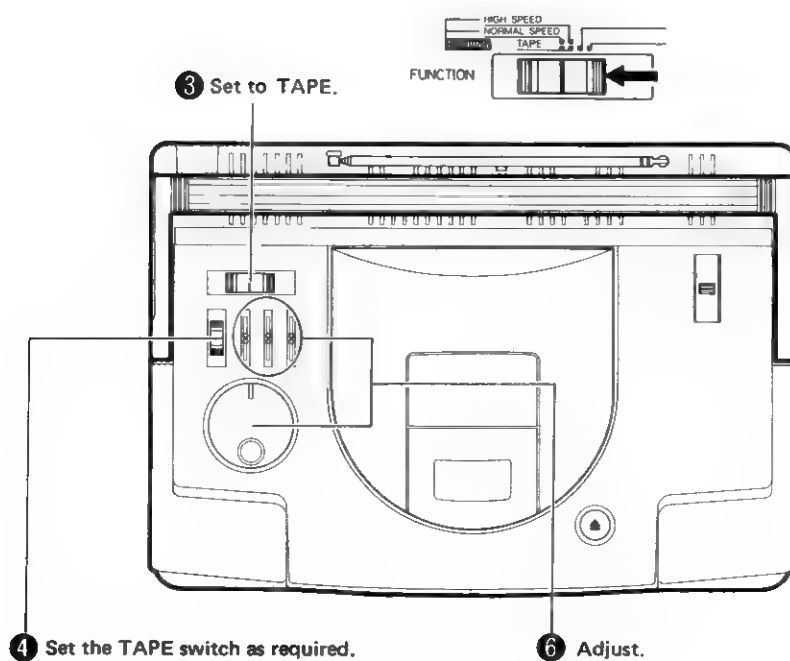
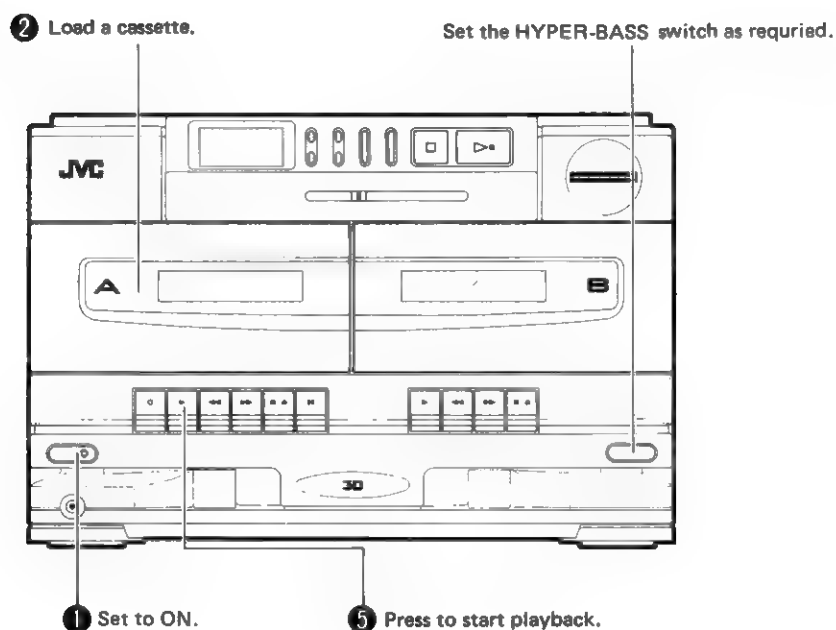
Operate in order shown.

• Playback in deck B

The previous procedures ④ and ⑤ also apply to deck B when a cassette is loaded in deck B. When decks A and B are simultaneously set to the play mode, only the playback sound of deck B is heard.

Notes:

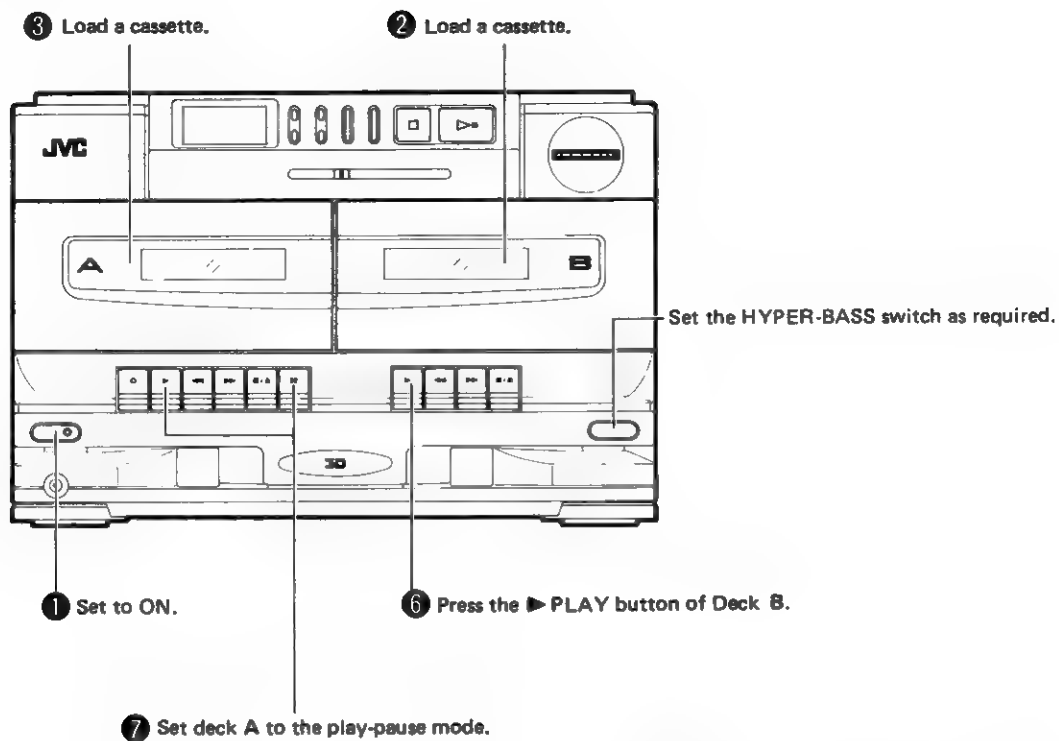
1. When the power is turned off while the tape is running, cassette operation buttons which are depressed do not return to the original positions. Press the ■ / ▲ STOP/EJECT button to stop the tape running before turning off the power.
2. Avoid operating the FF or REW button on the deck during playback of the other deck.



RELAY PLAYBACK

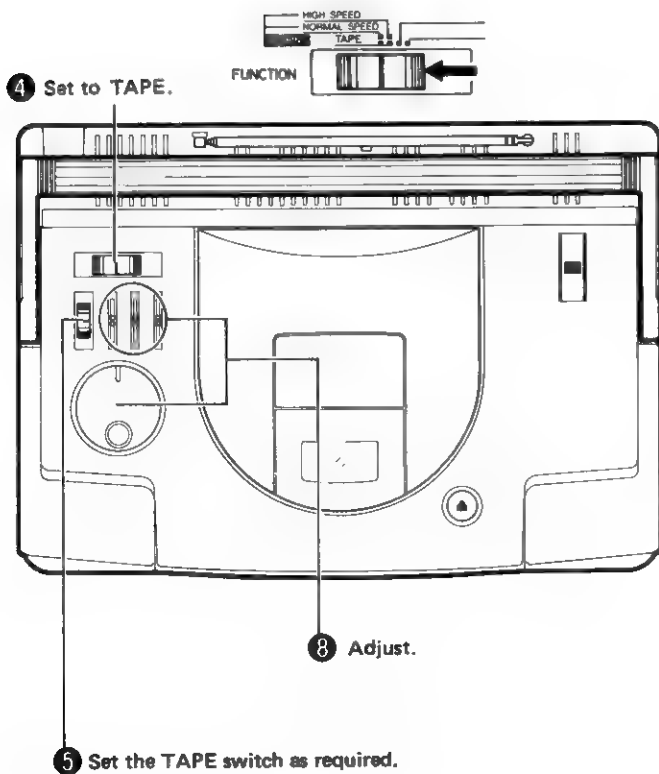
(From deck B to deck A)

Operate in order shown.



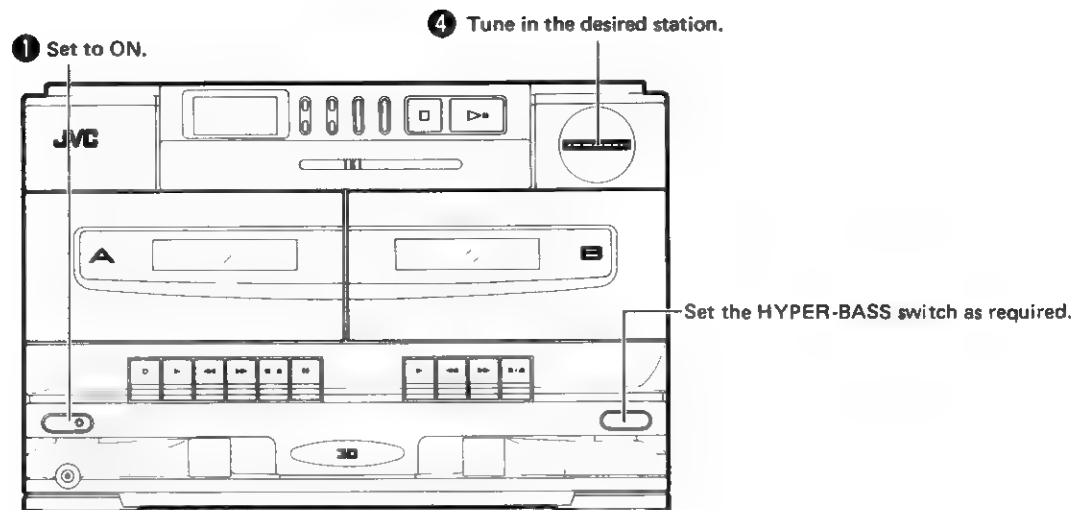
Notes:

1. Use the same type of tape in decks A and B.
2. When deck B stops, deck A's pause mode will be released and it will start playback. When deck A stops automatically, relay playback will be released.



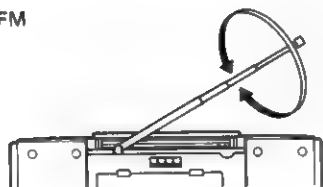
RADIO RECEPTION

Operate in order shown.

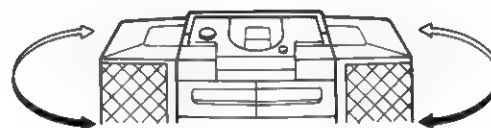


Using the antennas

FM

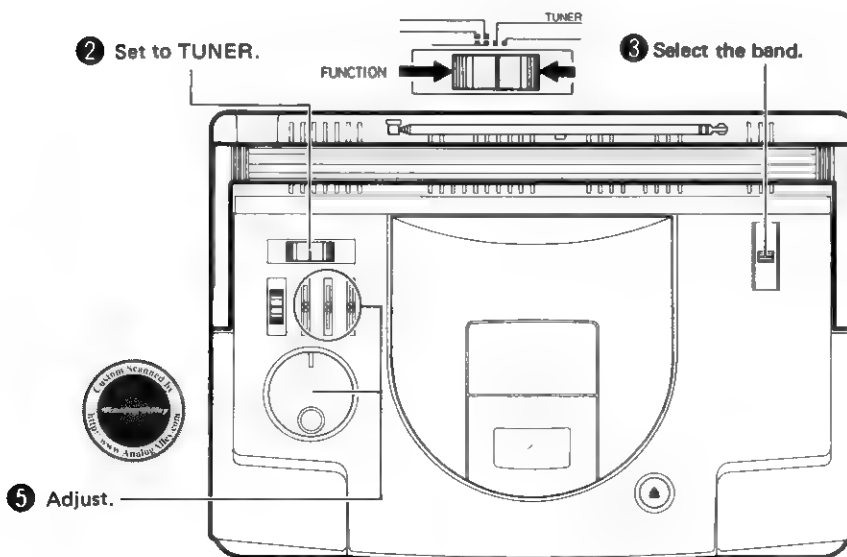


AM



Note:

The built-in ferrite core antenna can pick up interference tones from television receivers in the neighborhood and thereby disturb AM reception.



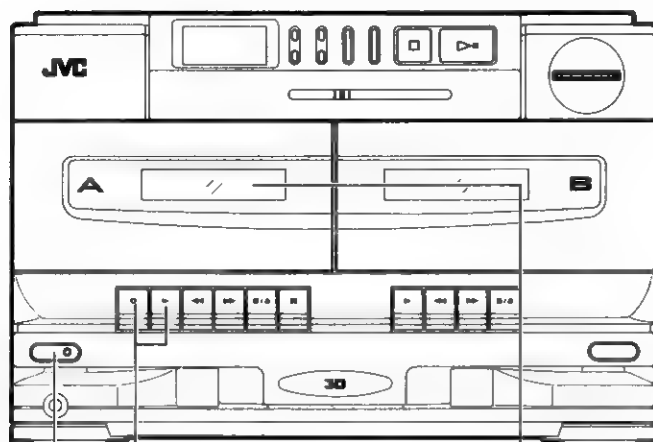
RECORDING (Deck A)



- In recording, the ALC circuit automatically optimizes the recording level and adjustment of the recording level is unnecessary.

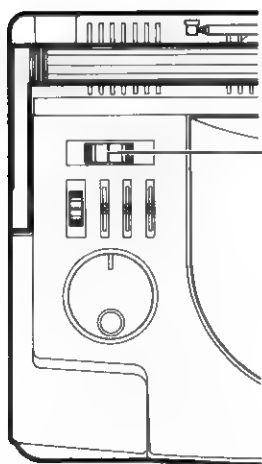
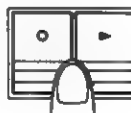
Operate in order shown.

Notes:

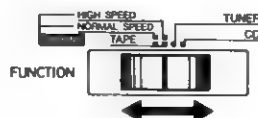
1. The recording characteristics of this unit are those of normal tape. Normal tape has different characteristics from CrO₂ and metal tapes.
2. Avoid operating the FF or REW button on deck B during recording.



- 1 Set to ON.
- 2 Load a cassette. (See the note below.)
- 4 Press the  REC and  PLAY buttons simultaneously.



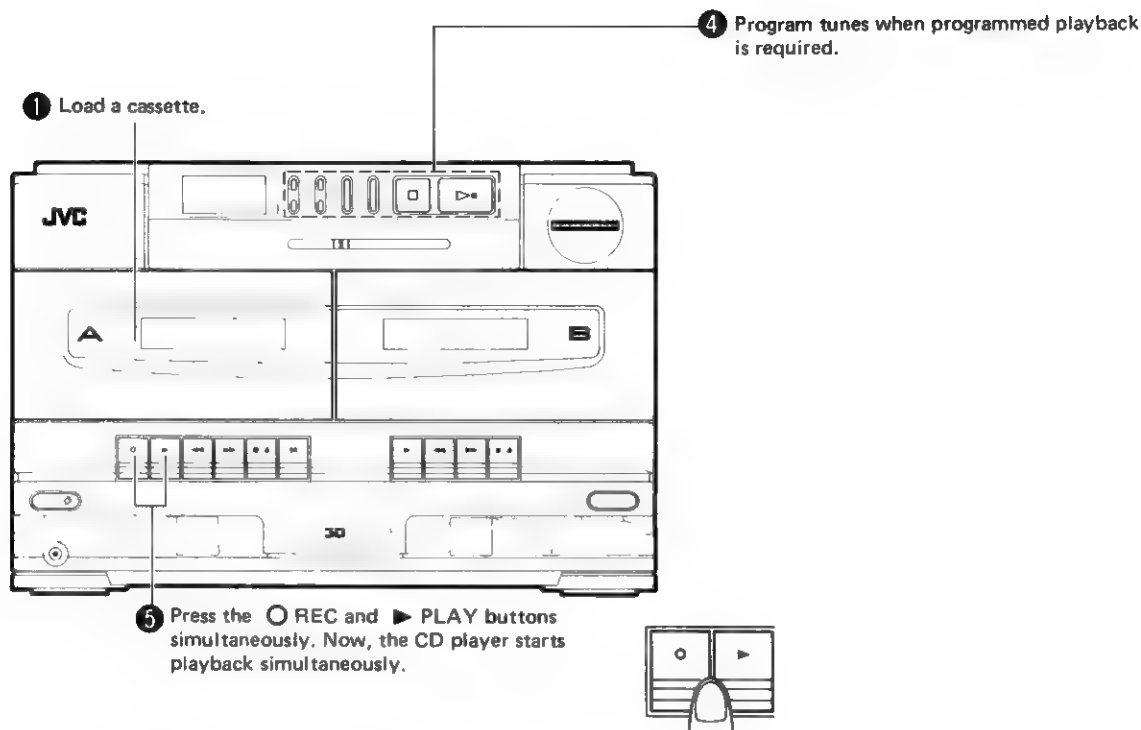
- 3 Select the recording source.
 - When dubbing the tape at normal-speed TAPE-NORMAL SPEED DUBBING
 - When dubbing the tape at high-speed TAPE-HIGH SPEED DUBBING
 - When recording from the radio TUNER
 - When recording from the CD player CD



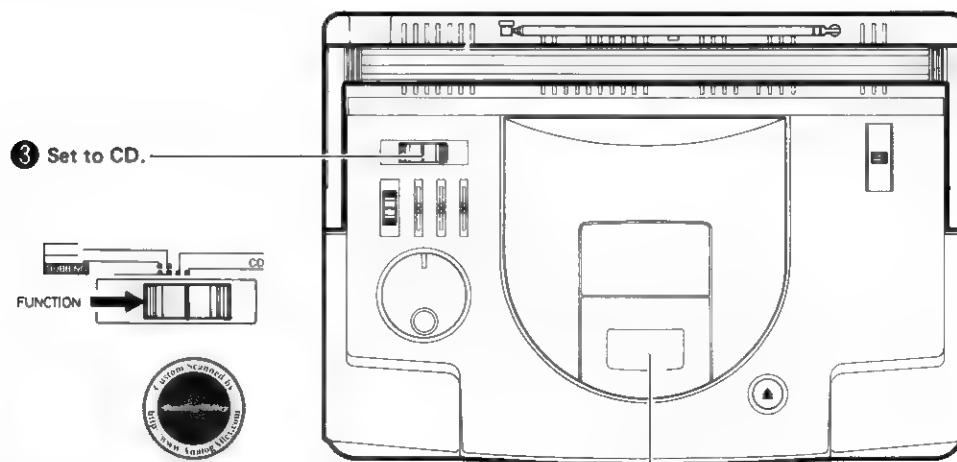
Synchronized recording with the CD Player

- In this system, the CD player starts playback when deck A enters the recording mode.

Operate in order shown.



- Non-recorded sections of approx. 4 seconds are left automatically between tunes.
- When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the STOP/EJECT button to stop the tape.



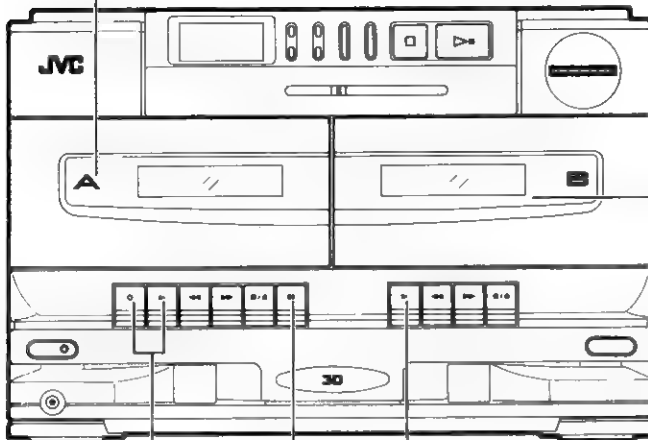
- When automatic spacing between tunes is not required . . .
Perform the following after finishing the previous operation (1 - 4).
- ① Press the PLAY/PAUSE button of the CD player twice. The CD player enters the pause mode.
- ② Press the REC and PLAY buttons simultaneously. Now, the CD player starts playback simultaneously.
- In this case, the CD player will not stop automatically even when the tape reaches the end first.
To stop the CD player, press the STOP/CLEAR button.

DUBBING (SYNCHRO START DUBBING)

Normal and high-speed dubbing can be done from deck **B** to deck **A**.

Operate in order shown.

- ② Load a cassette. (Refer to the note on page 30)

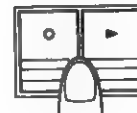


- ① Load a pre-recorded cassette.

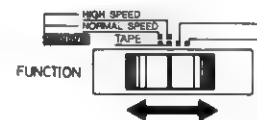
- ⑦ Press the ► PLAY button. (Synchronized dubbing will start.)

- ⑤ Press the || PAUSE button.

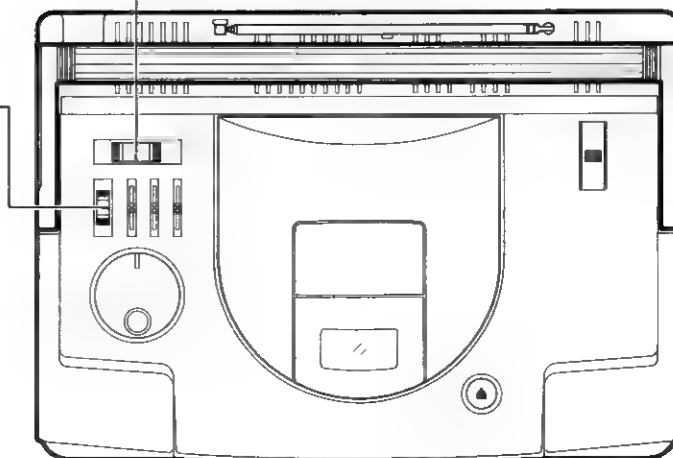
- ⑥ Press the ○ REC and ► PLAY buttons simultaneously. (Record-pause mode)



- ③ Set to NORMAL SPEED or HIGH SPEED DUBBING.

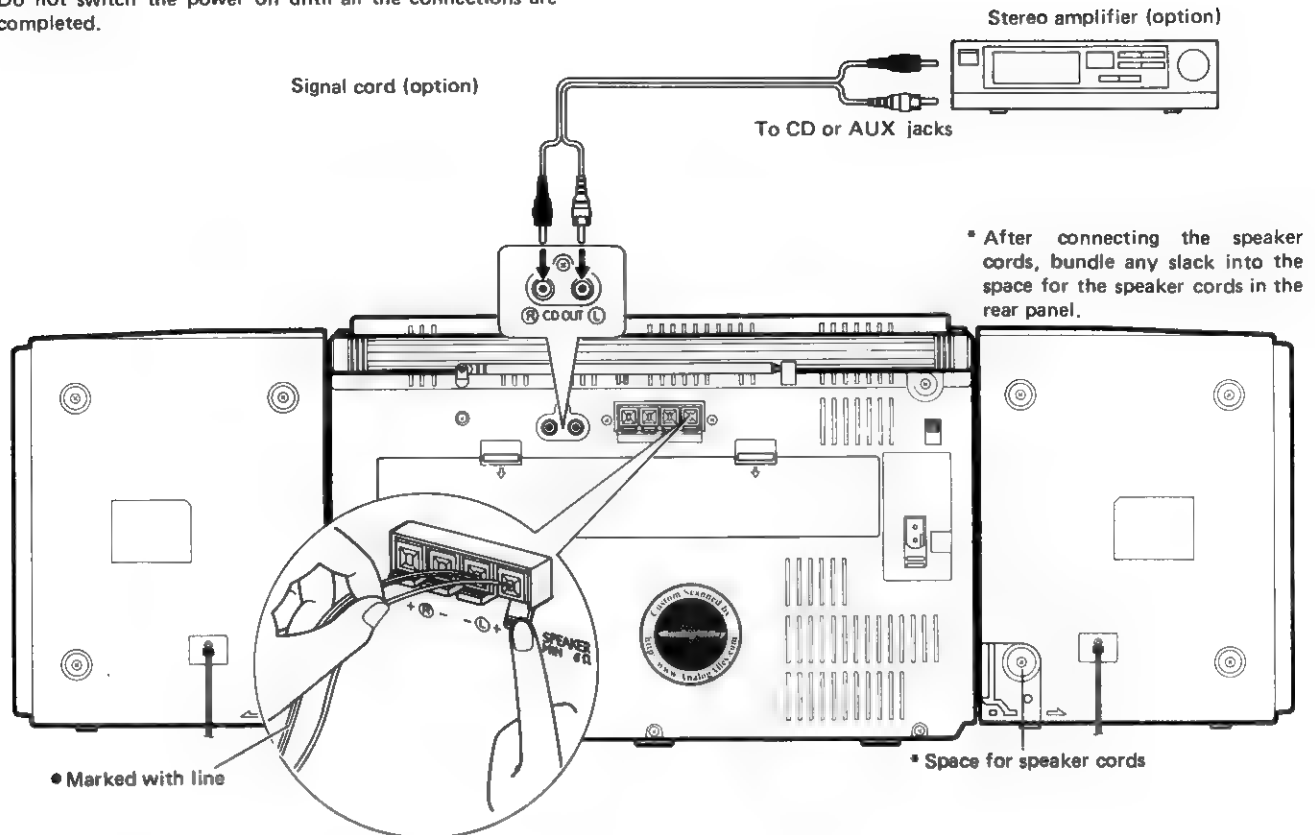


- ④ Set to correspond to the type of tape in deck **B**.



CONNECTIONS

- Do not switch the power on until all the connections are completed.

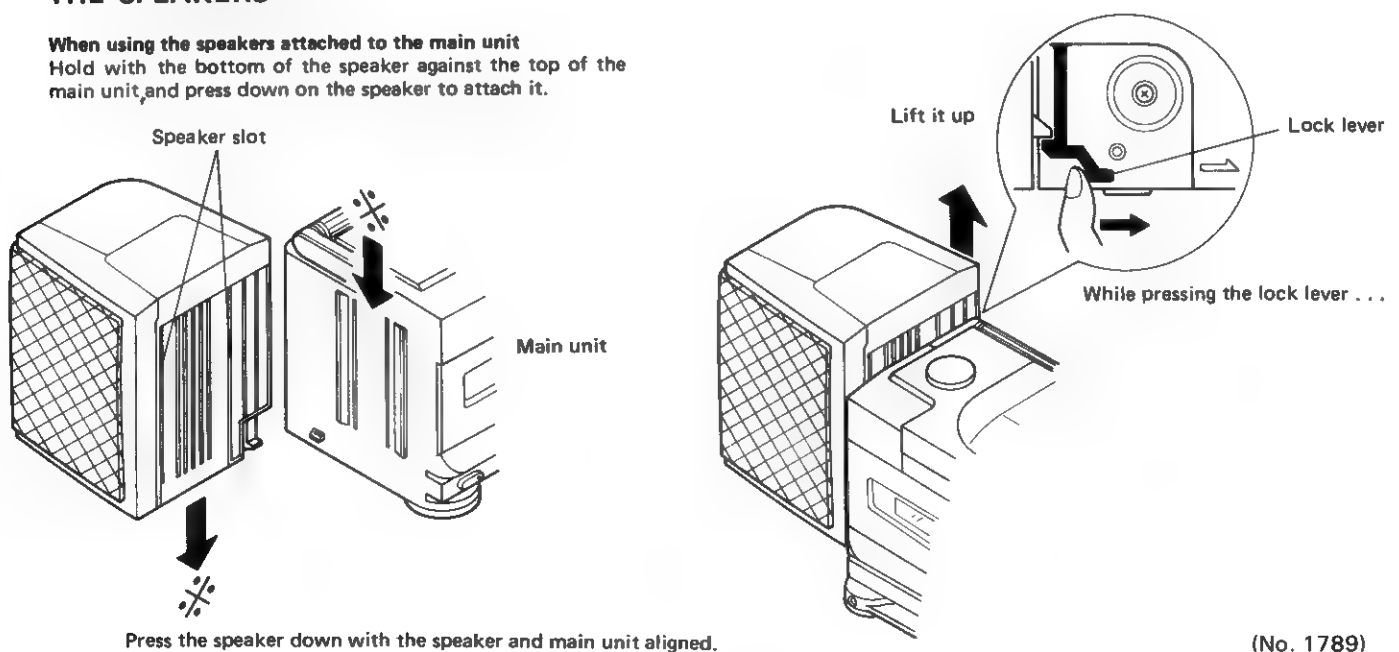


- To listen to a CD using an external stereo amplifier**
Set the input selector of the stereo amplifier to CD or AUX according to the jacks used for connection.
- To avoid incorrect connection, connect the white plugs of the connection cords to the L (left) channels and the red plugs to the R (right) channels.
- Connect each plug firmly. Loose connection may result in noise.

- When connecting the speaker cords, connect the one marked with a line to the "-" terminal first.

ATTACHING/DETACHING THE SPEAKERS

When using the speakers attached to the main unit
Hold with the bottom of the speaker against the top of the main unit, and press down on the speaker to attach it.



6 Location of Main Parts

■ Top view

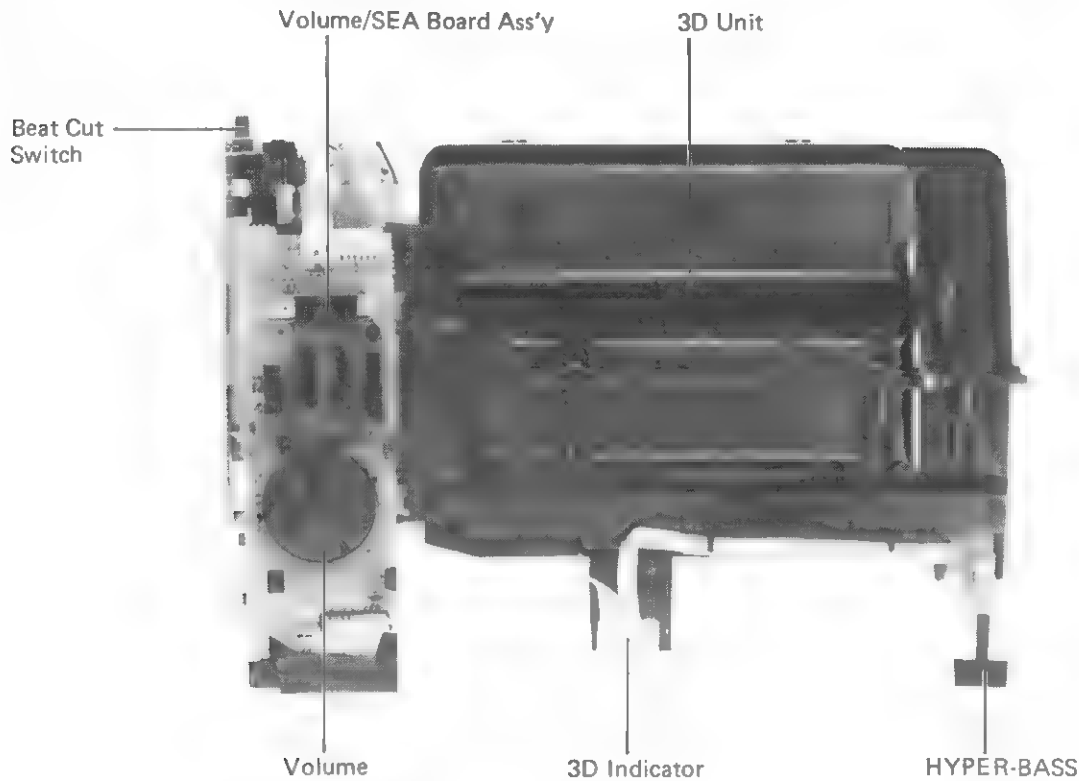


Fig. 6-1

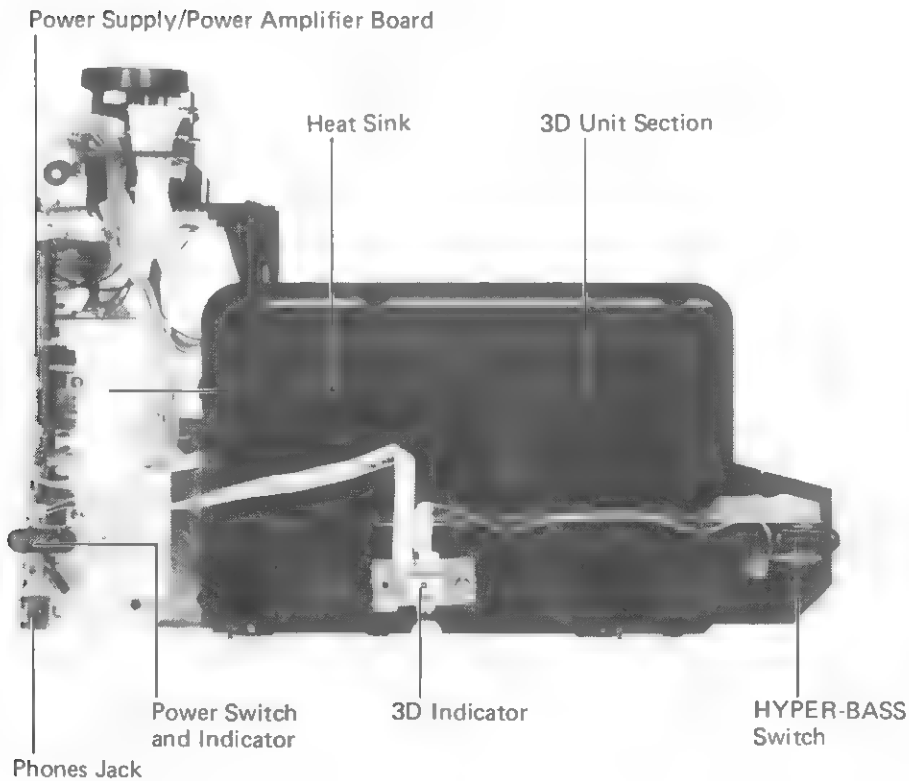


Fig. 6-2

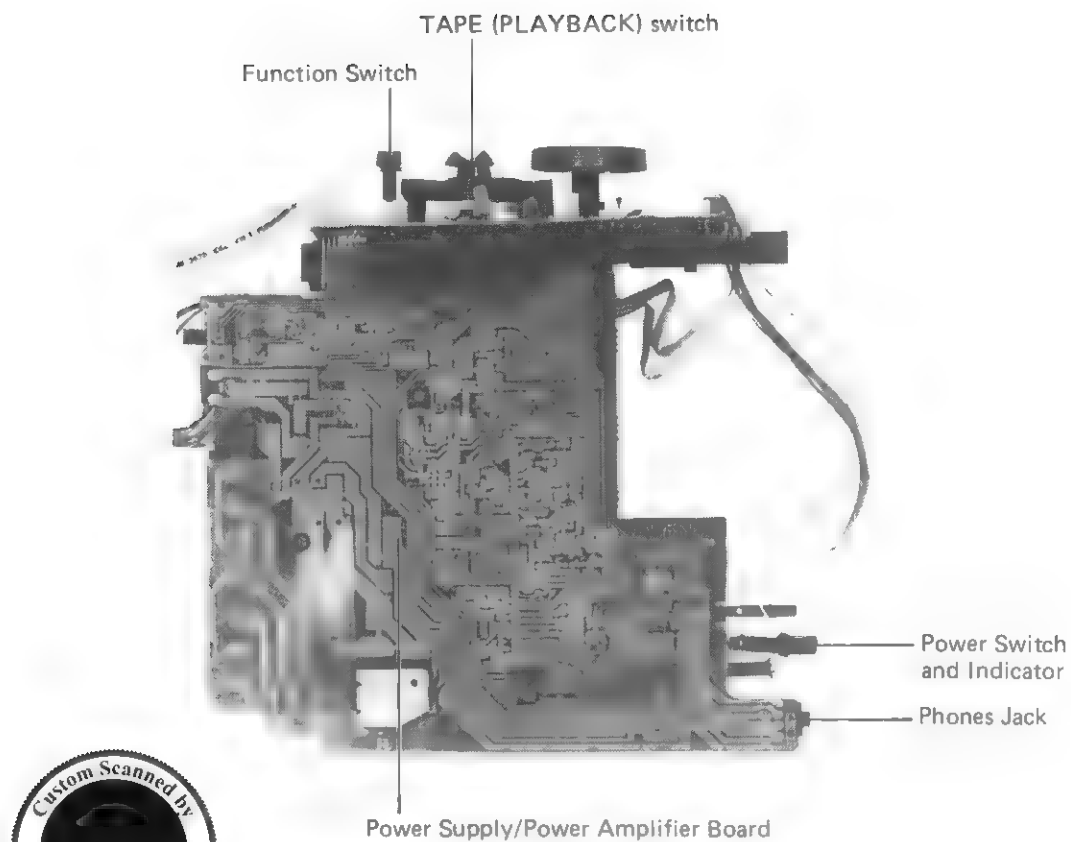


Fig. 6-3

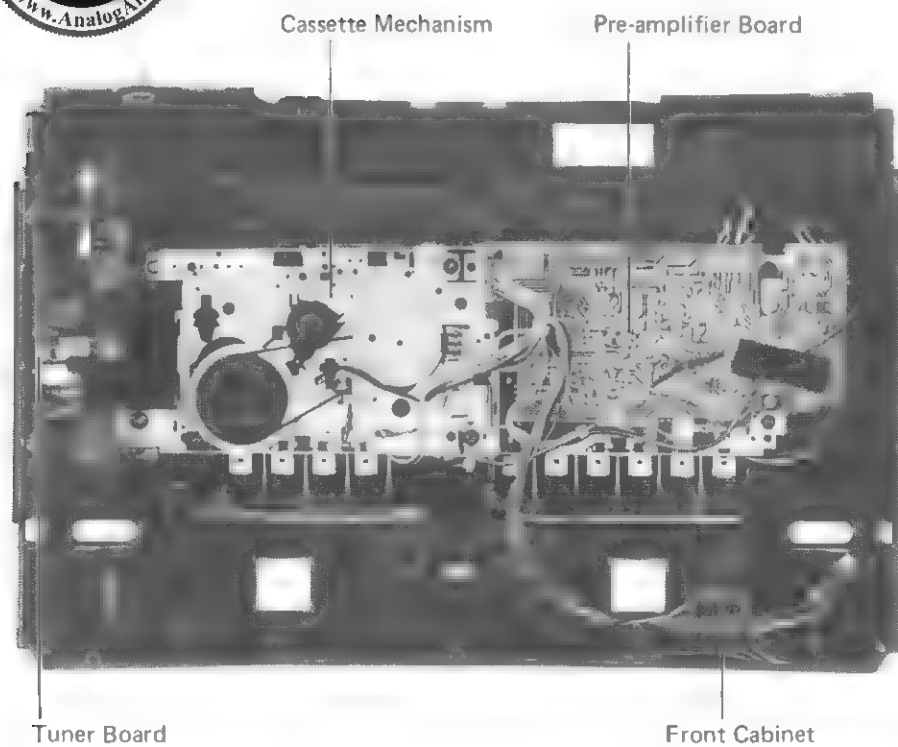


Fig. 6-4

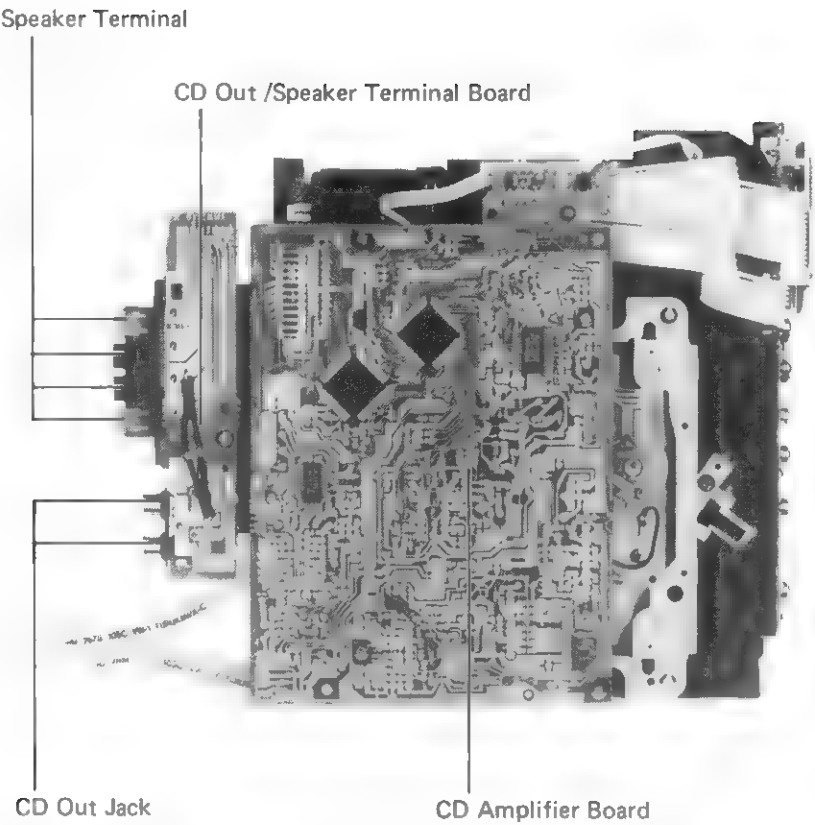


Fig. 6-5

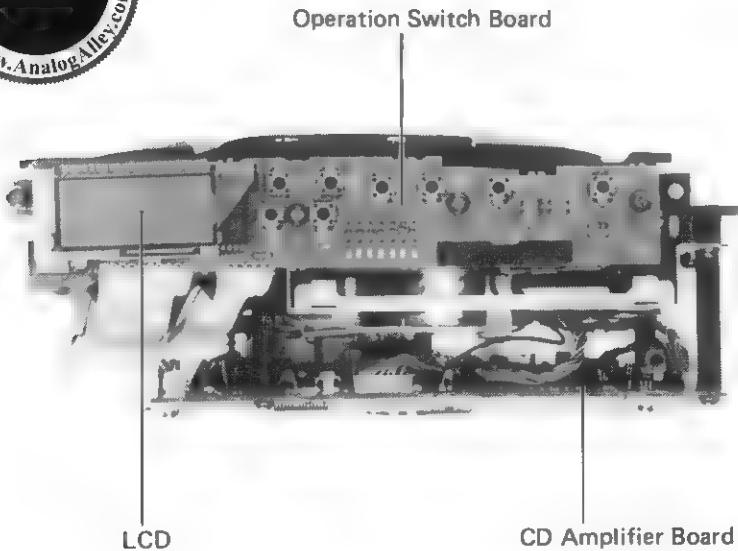


Fig. 6-6

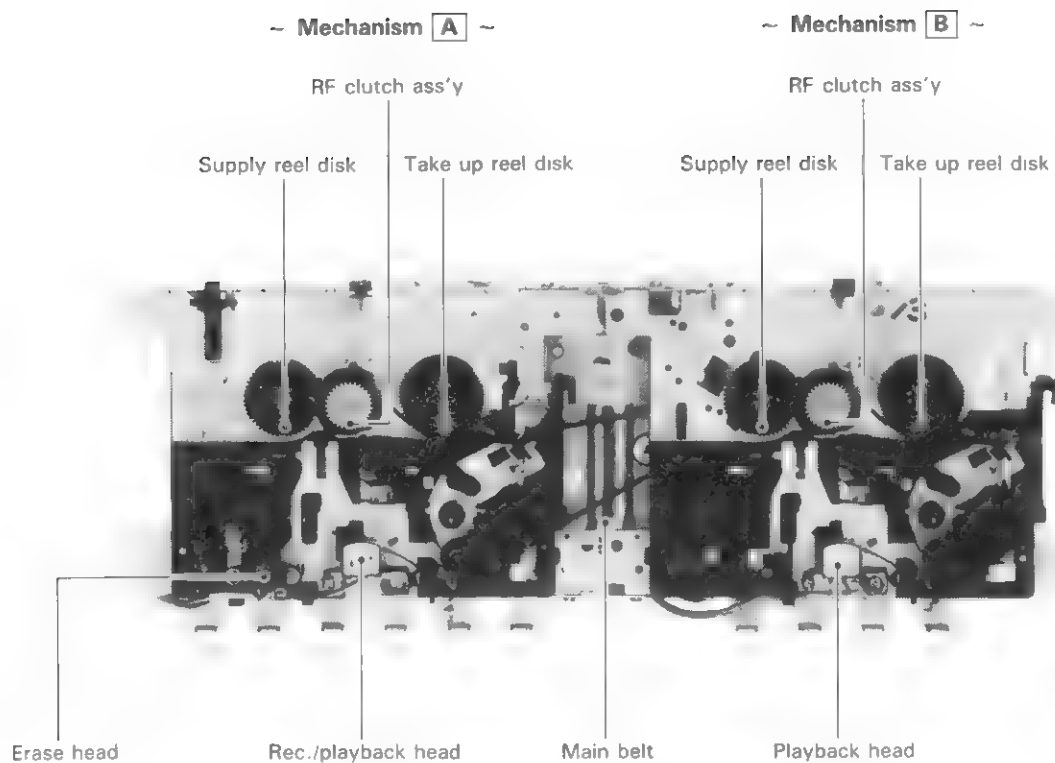


Fig. 6-7

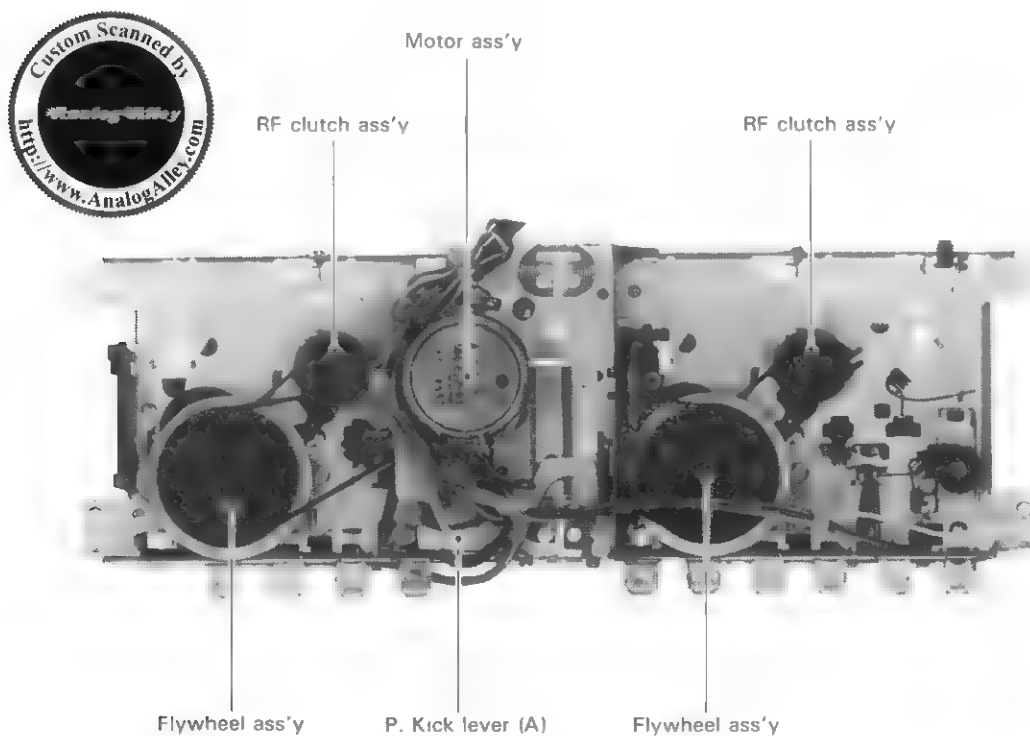


Fig. 6-8

7 Removal of Main Parts

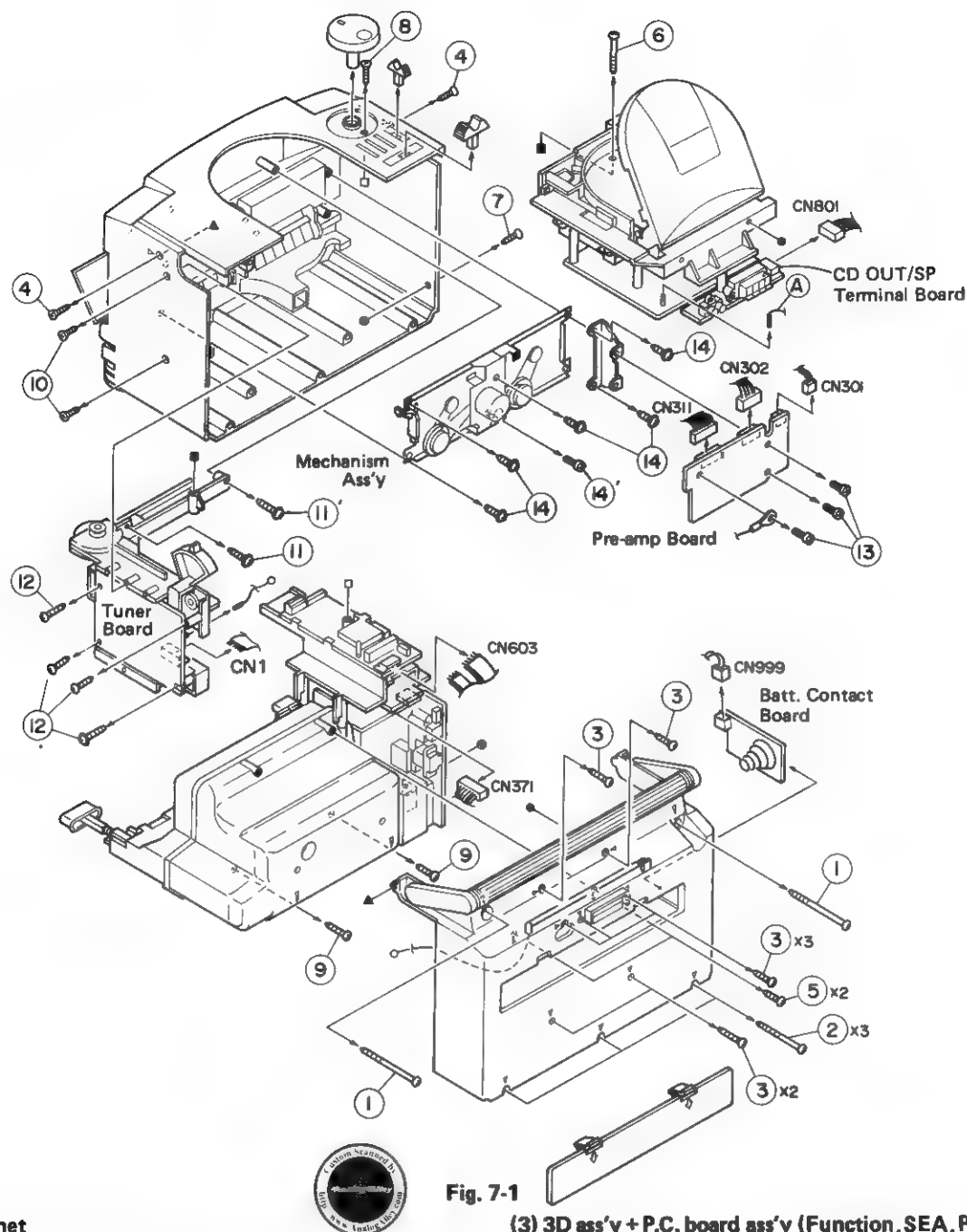


Fig. 7-1

(1) Rear cabinet

- 1) Take off the battery cover.
- 2) Remove the fourteen screws indicated with Δ marking on the cabinet (① x 2, ② x 3, ③ x 7, ⑤ x 2) retaining the rear cabinet.
- 3) Remove the two screws ④ retaining the front cabinet.
- 4) Take off the antenna wire (A) from the tuner board.
- 5) Pull the connector CN999.

(2) CD player section

- 1) Pull out the 7-pin connector CN801 from the CD OUT/SP jack board.
- 2) Pull out the wire (A) from the CD amp. board.
- 3) Pull out the two parallel wires (2-pin, 5-pin) from the tape select/function board.
- 4) Open the CD door and remove the one screw ⑥ retaining the tuner chassis.

(3) 3D ass'y + P.C. board ass'y (Function, SEA, Power Supply)

- 1) Pull out the parallel wire (CN1) from the tuner board.
- 2) Pull out the 7-pin connector (CN371) from the power supply board.
- 3) Pull out the 12-pin connector (CN311) from the pre-amp board.
- 4) Remove the one screw ⑦.
- 5) Pull out the VOLUME knob and remove the one screw ⑧.
- 6) Pull out the FUNCTION and TAPE switches.
- 7) Remove the two screws ⑨ indicated with Δ marking on the 3D cover.

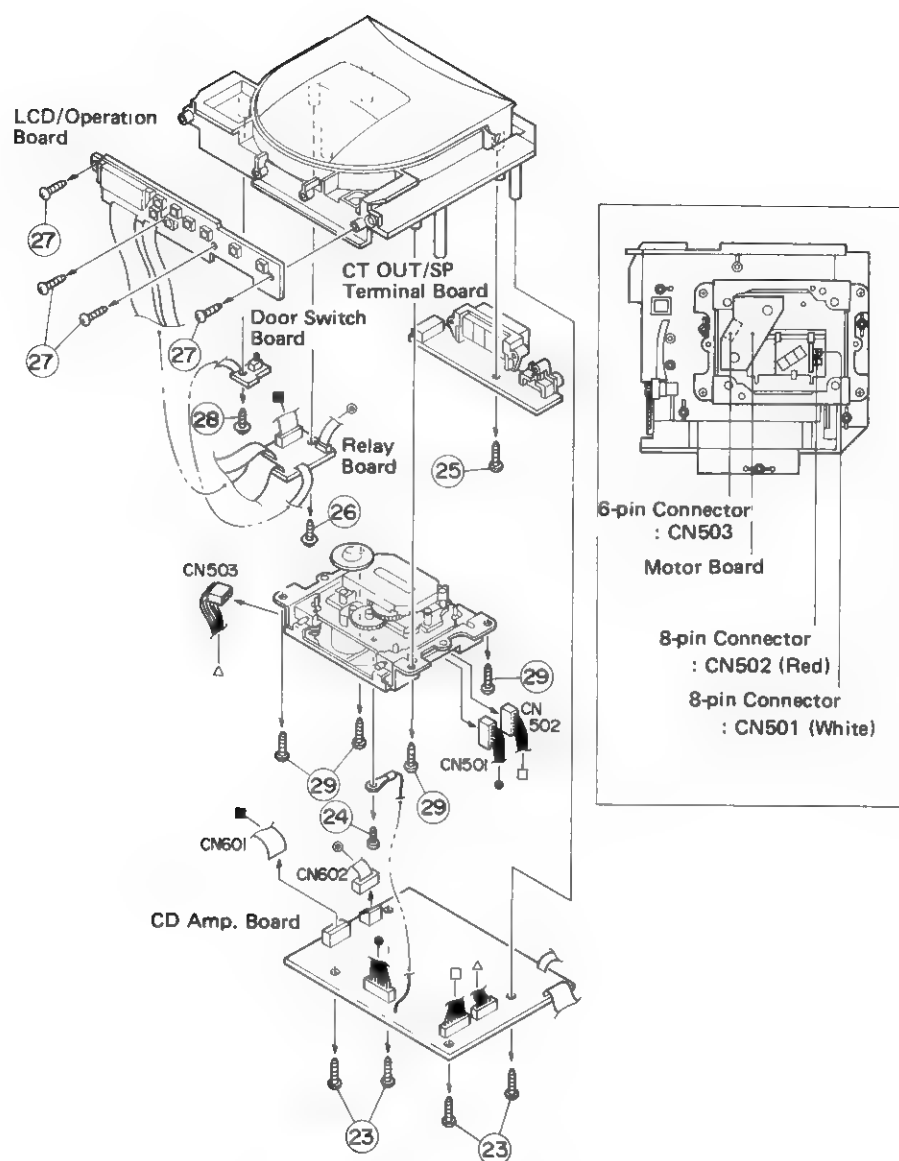


Fig. 7-2

(4) Tuner board (Fig. 7-1)

- 1) Remove the two screws ⑩ on the front cabinet.
- 2) Remove the two screws ⑪, ⑪' retaining the tuner chassis.
- 3) Remove the four screws ⑫ retaining the tuner board.

(5) Mechanism ass'y

- 1) Remove the three screws ⑬ retaining the pre-amp board.
- 2) Pull out the 3-pin connector (CN301) and the 7-pin connector (CN302) from the pre-amp board.
- 3) Open the cassette door and remove the six screws ⑭, ⑭'.

(6) CD mechanism ass'y

- 1) Remove the four screws ⑮ retaining the CD amp. board.

- 2) Pull out the two 8-pin connectors (CN501, CN502) from the CD mechanism ass'y.

- 3) Pull out the 6-pin connector (CN503) from the CD motor board.

- 4) Remove the one screw ⑳.

- 5) Pull out the parallel wires (CN601) and 3-pin connector (CN602) from the CD board.

- 6) Remove the one screw ㉑ retaining the CD OUT/SP terminal board.

- 7) Remove one screw ㉒ retaining the relay board.

- 8) Remove the four screws ㉓ retaining the LCD/operation board.

- 9) Remove the one screw ㉔ retaining the door switch board.

- 10) Remove the four screws ㉕ retaining the mechanism ass'y.

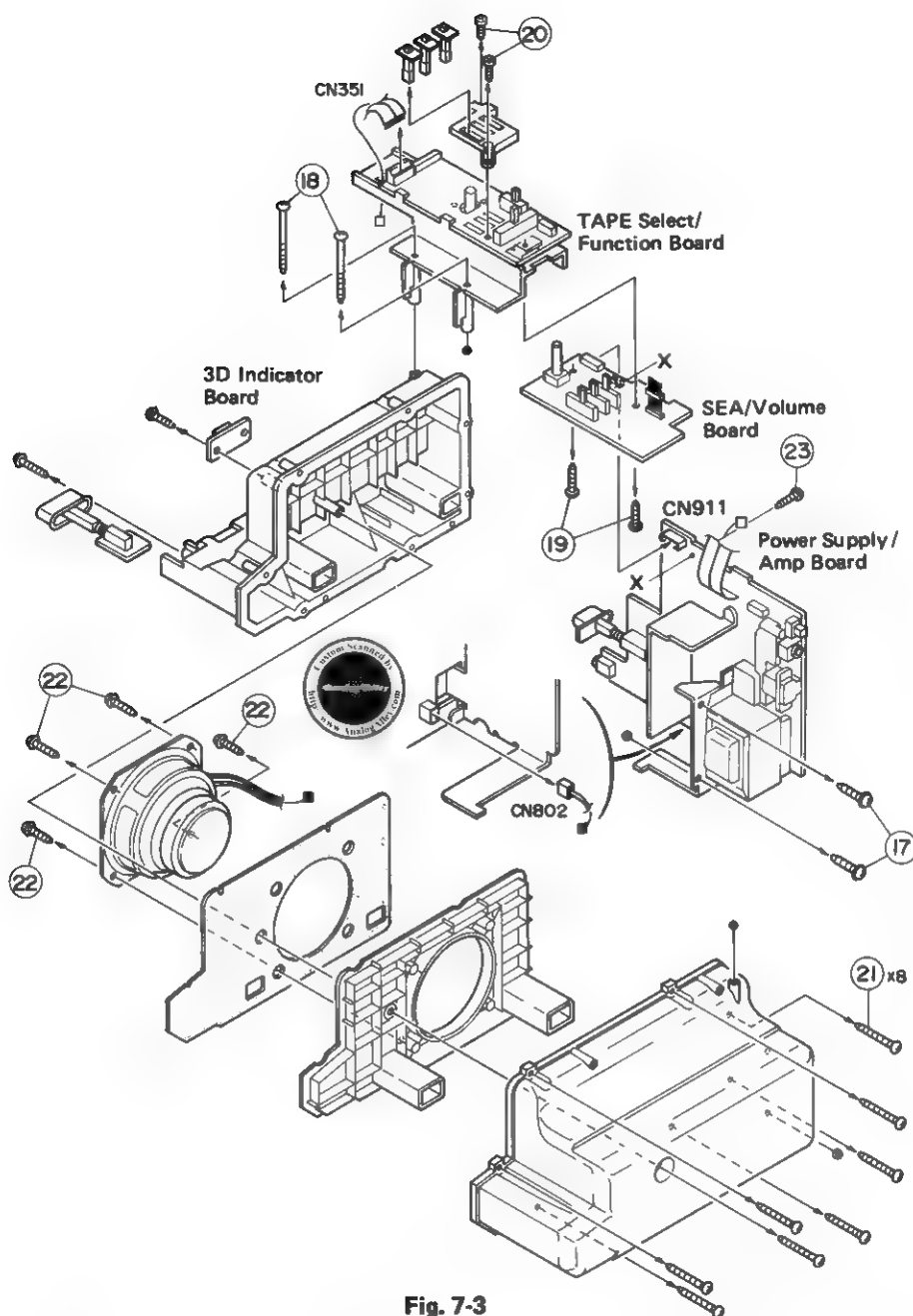


Fig. 7-3

(7) Power supply/Amp. board, SEA/Volume board and TAPE select/Function board

- 1) Remove the two screws (18) retaining the chassis to the 3D cover.
- 2) Remove the two screws (17) retaining the transformer bracket to the 3D cover.
- 3) Pull out the 2-pin connector (CN802) from the Power supply/Amp. board.
- 4) Pull out the three SEA knobs.
- 5) Pull out the parallel wires (9-pin: CN351) from the TAPE select/Function board.
- 6) Remove the screw (23) retaining the Power supply/Amp. board, and remove the connector CN901 from the connector CN911.
- 7) Remove the two screws (19) separating the TAPE select/Function board from the SEA/Volume board.
- 8) Remove the three screws (20) retaining the TAPE select/Function board to the chassis.

(8) 3D speaker

- 1) Remove the eight screws (21) to separate the 3D base from the 3D cover.
- 2) Remove the four screws (22) retaining the speaker.

■ Cassette Mechanism Sections

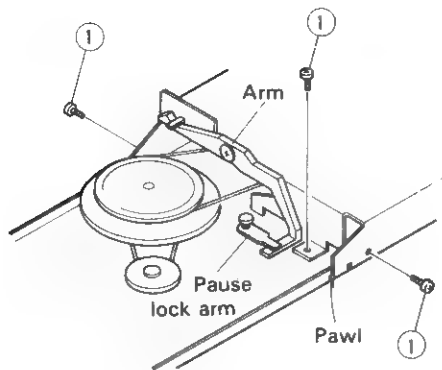


Fig. 7-4

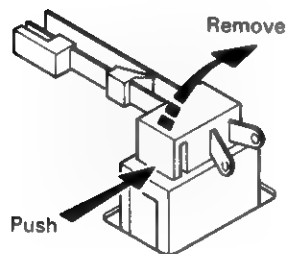


Fig. 7-6

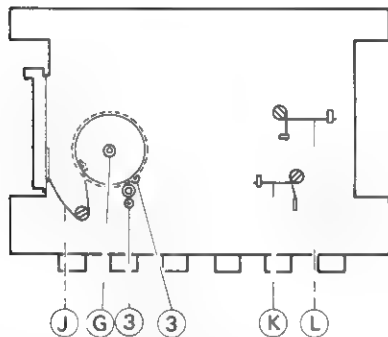


Fig. 7-8

■ Motor bracket (Recording/playback deck)

- 1) Remove the three screws ①.
- 2) Remove the chassis and M. bracket from the button side. Then remove the bracket arm (panel).
(The synchro arm can be removed from the pause lock. Return the pause lock after it is removed from the proper position.)

■ Head section

- 1) Remove the record/playback head's mounting screw (A) and loosen screw (B).
- 2) Remove the erase head mounting screw (C) and (D).

■ Pinch roller

- 1) Remove the pinch roller arm stopper (E).

■ Flywheel ass'y

- 1) Remove the C washer (F) securing the capstan shaft.
- 2) Pull out the flywheel ass'y.

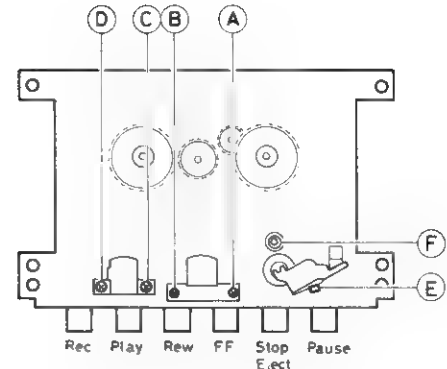


Fig. 7-5

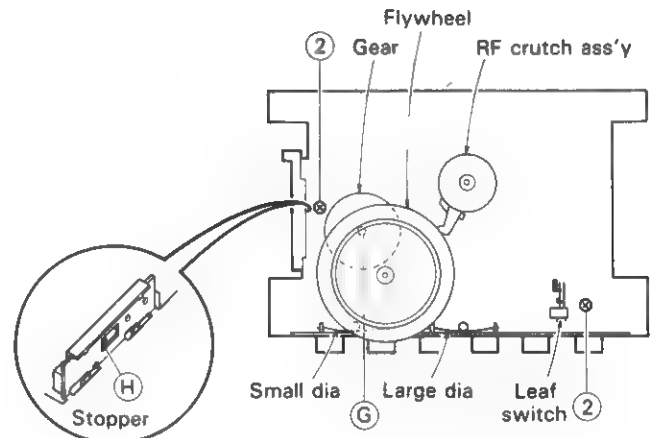


Fig. 7-7



Fig. 7-9

■ Removal of the button ass'y from the mechanical chassis.

- Leaf switch
Press the switch's lock panel and raise from the left to remove.
- Gear (Below the flywheel)
Remove the C washer (G) securing the gear.
For reassembly, insert the Sensing Lever arm stand into the (Z) section.
- Lock arm
Press the arm stopper from window (H), and pull to remove.
- Chassis removal
 - 1) Remove the three (J), (K), and (L) springs.
 - 2) Remove the two screws (2).
 - 3) Remove the two screws (3) securing the capstan metal.
 - 4) Gently remove the button ass'y from the chassis.

8 Main Adjustments

Equipment and Measuring Instruments used for Adjustments

Electronic voltmeter
Audio frequency oscillator
Attenuator

Wow-flutter meter
Frequency counter
Standard signal generator

Torque testing cassette gauge CTG-N
Alignment tape
measuring tape : TS-8 (UR)

Condition for Measurement

Power supply AC 120 V (50/60 Hz)PC-X500C
AC 110-120/220-240 V ...PC-X500J
DC 12 V

Reference output Speaker : 0 dBs (0.775 V)/3 Ω
Woofers : L, R 4 Ω
Headphone : 0 dB (0.775 V)/32 Ω

Reference position... Function : TAPE
of switch Tape select: NORMAL
Beat cut : NORMAL 1
Dubbing speed select
: NORMAL SPEED
Mode : STEREO
Noise reduction: OFF

Reference position... Volume : Adjust to 0 dBs output
of volume SEA : Center
Reference input..... MIX MIC : -50 dBs
level (When using the MIX MICROPHONE,
set Deck B to PLAY position and set
the TAPE SELECT to NORMAL posi-
tion.)
CD output: at -8 dBs
(Use the CD OUTPUT terminal as an
Input Terminal. When in use, remove
the disc and put the function switch
in CD position.)

Measuring output.... Speaker terminal
terminal

Amplifier Section

Item	Measuring Conditions and Main Adjustments		Standard Value	Adjusting Point
Playback output level adjustment	<p><Conditions> 1. Measuring tape: VTT724 (1 kHz) 2. Measuring point: TP (CN311 Connector)</p> <p><Adjustment> 1. Playback the test tape VTT724 (at 1 kHz) and adjust Lch: VR101 and Rch: VR102 of deck A so that output of TP (CN311 connector) becomes -21 dB. Also adjust Lch: VR201 and Rch: VR202 of Deck B same as Deck A.</p>		-21 dB \pm 1 dB	Deck A Lch: VR101 Rch: VR102 Deck B Lch: VR201 Rch: VR202
Playback frequency response confirmation	<p><Conditions> 1. Measuring tape: VTT736 2. Measuring point: TP (CN311 connector)</p> <p><Confirmation> 1. Playback the test tape VTT736 difference level against 1 kHz. 1 kHz/63 Hz : less than -1\pm4 dB 1 kHz/12.5 kHz : less than 0\pm4 dB 2. When comparing the difference level of the NORMAL and METAL positions, the METAL one should be as follows: 12.5 kHz: less than -4\pm2 dB</p>		Normal position 1 kHz/63 Hz : less than -1 \pm 4 dB 1 kHz/12.5 kHz : less than 0 \pm 4 dB	_____
Bias frequency adjustment	<p><Conditions> 1. Measuring point: Speaker terminal 2. Mode: REC/PAUSE</p> <p><Adjustment> Adjust L301 so that standard value is 68\pm0.5 kHz while in RECORD/PAUSE mode.</p>	Beat Cut Switch	Bias frequency	L301
		1 (Normal) 2 3	68 \pm 0.5 kHz 67.1 \pm 1 kHz 69.5 kHz	

Item	Measuring Conditions and Main Adjustments	Standard Value	Adjusting Point
Head azimuth adjustment	<p>< Conditions ></p> <ol style="list-style-type: none"> 1. measuring tape: VTT702 (8 kHz) 2. Measuring Point: Speaker terminal <p>< Adjustment ></p> <ol style="list-style-type: none"> 1. Playback VTT702 on both deck A and B, adjust Azimuth screw as in figure so that phase difference becomes smallest within 1 dB from peak point. 2. Adjust Forward and Reverse of Deck B by Azimuth head screw on tape's running direction side. 3. The screws must be bonded on after adjustment. (one location on Deck A, two locations on Deck B) 	<p>Within 1 dB from peak point.</p>	<p>Deck A</p> <p>Fig. 9-1</p> <p>Deck B</p> <p>Fig. 9-2</p>
Tape speed and wow-flutter adjustment and confirmation	<p>< Conditions ></p> <ol style="list-style-type: none"> 1. Measuring tape: VTT712 (3 kHz) 2. Measuring point: Speaker terminal <p>< Adjustment & Confirmation ></p> <ol style="list-style-type: none"> 1. Playback the test tape VTT712 at tape end. 2. Deck B :Adjust semifixed resistor VR301 in the motor so that tape speed is within 2990 ~ 3010 Hz at normal speed. Deck A :After adjustment Deck A and B should be from 2950 ~ 3100 Hz. 3. Should be from 5100 ~ 5700 Hz when hi-speed dubbing. 4. Check to see if reading of the meter is less than 0.38% (JIS RMS). 	<p>Tape speed NORMAL 2990 ~ 3010 Hz High 5100 ~ 5700 Hz Wow-flutter less than 0.38% (JIS RMS)</p>	<p>Tape speed VR301</p>
REC/Playback sensitivity adjustment	<p>< Conditions ></p> <ol style="list-style-type: none"> 1. Measuring input: CD out 2. Measuring point: Speaker terminal <p>< Adjustment ></p> <p>First input 1 kHz (REF - 5 dBs) signal into CD OUT. When recording this signal onto the tape and playing it back, adjust Lch: VR103 and Rch: VR203 of Deck B so that the output level is 1 ± 1 dB.</p>	<p>REC/Playback sensitivity 1 ± 1 dB</p>	<p>Deck B : Lch VR103 Rch VR203</p>
REC/Playback frequency characteristics adjustment	<p>< Conditions ></p> <ol style="list-style-type: none"> 1. Measuring input: CD out 2. Measuring point: DOLBY T.P. <p>< Adjustment ></p> <p>First input 1 kHz (REF - 20 dB) signal into CD OUT. When recording this signal onto the tape and playing it back, adjust Lch: VR104 and Rch: VR204 so that the output level is 0 ± 1 dB at the 12.5 kHz point.</p>	<p>0 ± 1 dB at 12.5 kHz point</p>	<p>Lch : VR104 Rch : VR204</p>

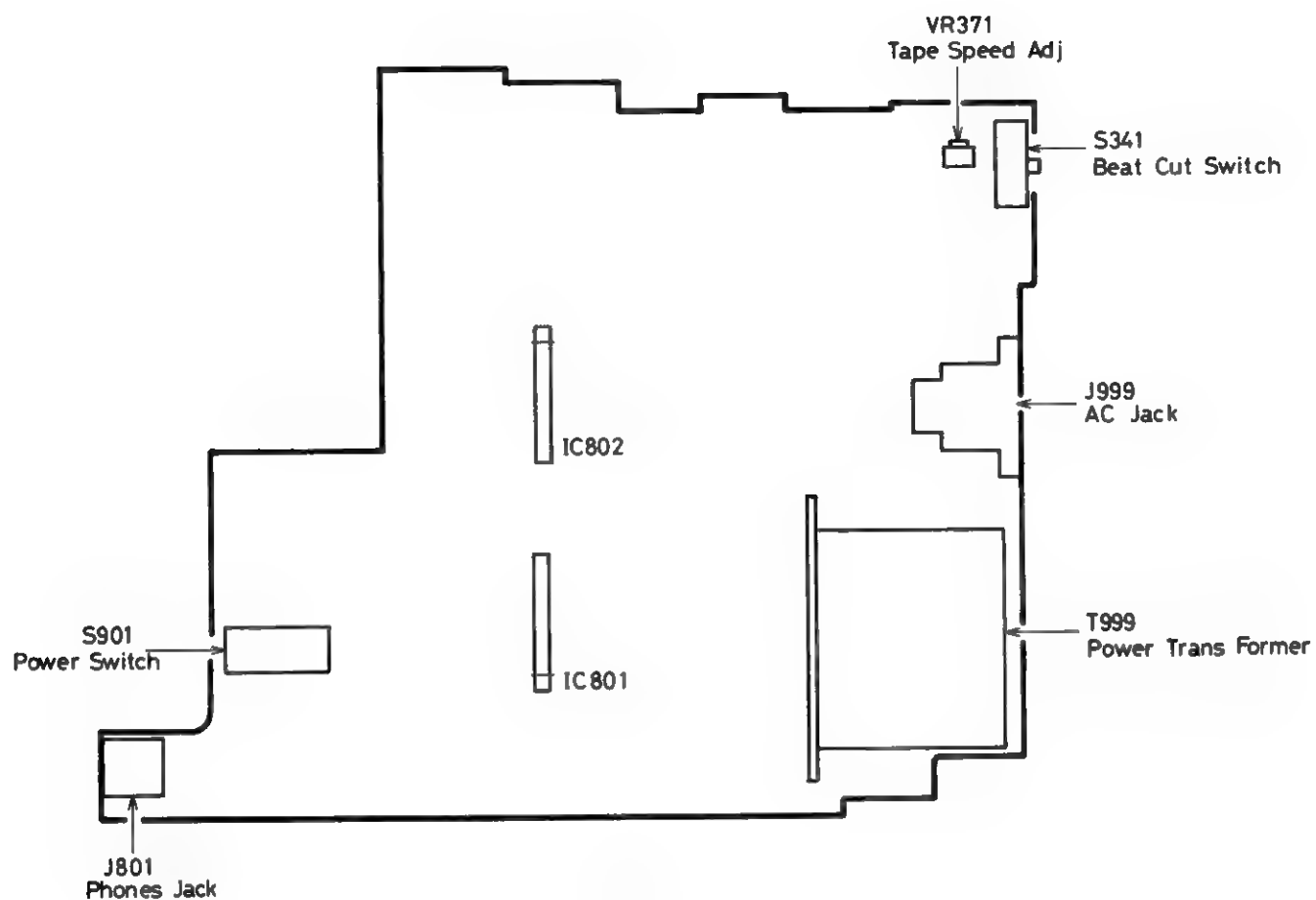


Fig. 8-1

■ Location of Adjustments: Tuner Section

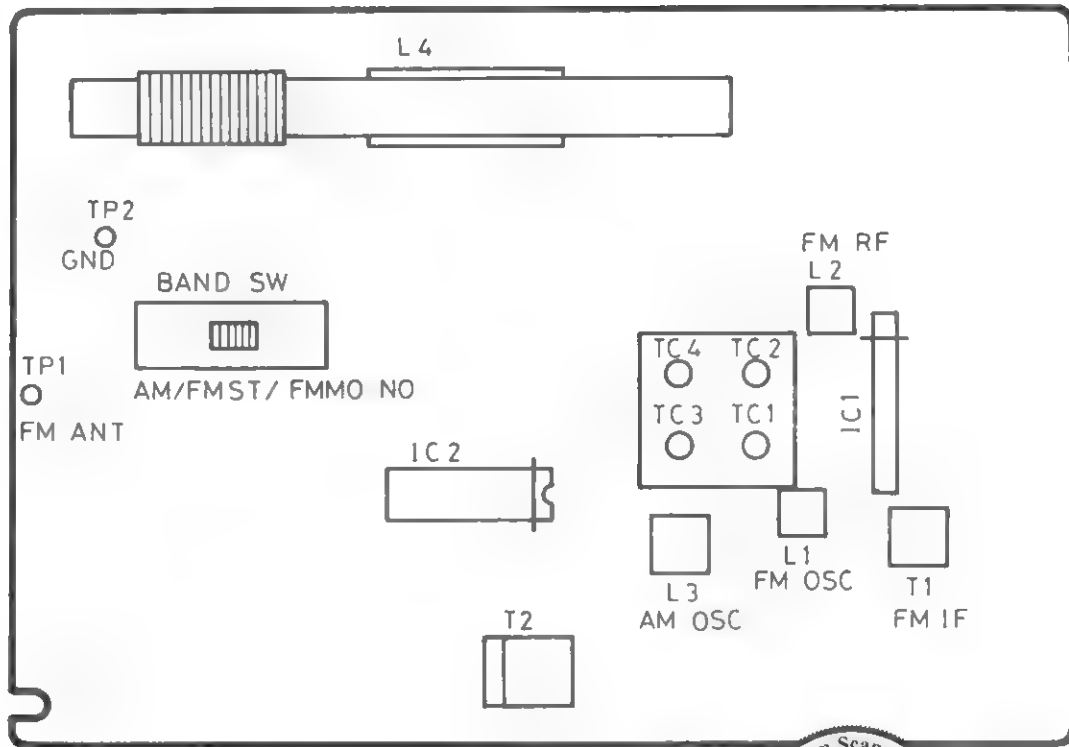


Fig. 8-2

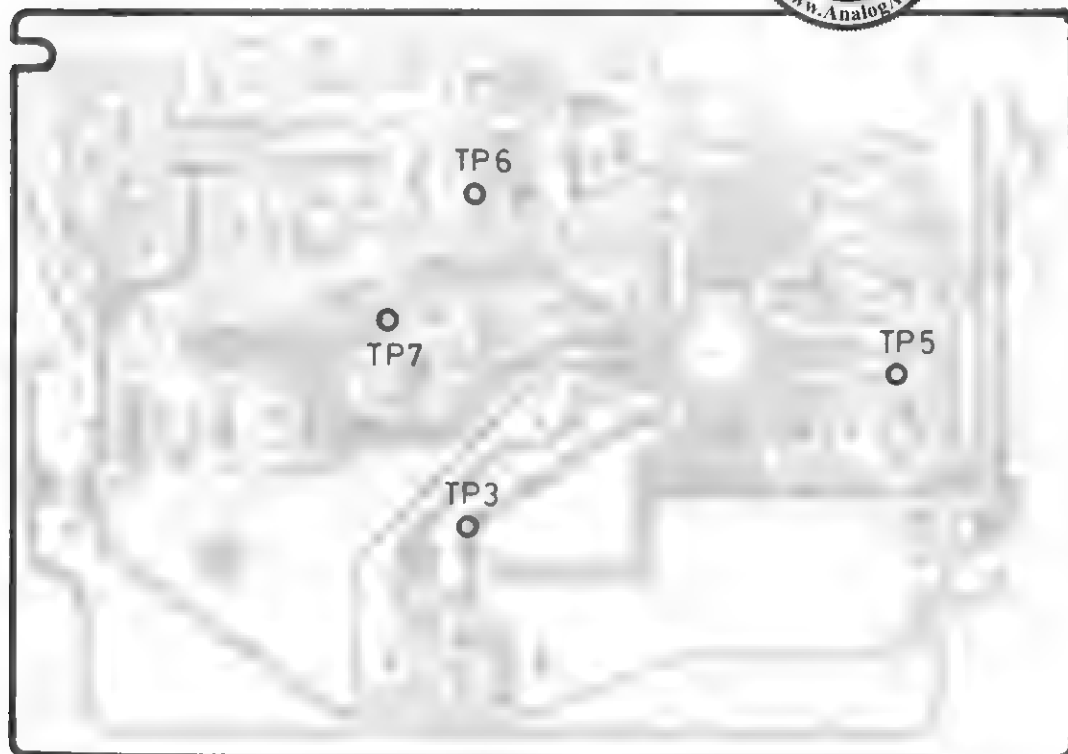

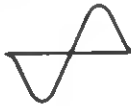


Fig. 8-3

■ Tuner Alignment

BASIC CONDITIONS

POWER SOURCE OF THE RECEIVER	DC 12 V, AC 120 V (Tuner input: DC 7.0 V)
LOAD RESISTANCE OF THE RECEIVER	50 mW (0.55 V)/6 Ω
MODULATION OF SSG	AM: 400 Hz, 30% FM: 400 Hz 22.5 kHz DEV:
Item	Description
1. AM IF ALIGNMENT (The unit should not usually require adjustment. Follow the steps below when adjustments are necessary).	
1-1 Conditions of the receiver.	
(1) Power source:	DC 7.0 V (When the power is supplied directly to the tuner in the receiver, the voltage should be adjusted to the proper level which shall be required by the tuner.)
(2) Function switch position:	RADIO
(3) Band select switch:	AM
(4) Volume control:	Minimum gain position
(5) SEA control:	Center position
(6) Reception frequency:	Set the reception frequency to the highest position and to the position where the signal does not enter.
1-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP3
(2) Tuner output:	Positive side to TP6 Negative side to TP7
1-3 Aligning position:	CFT, T2
1-4 Alignment (Waveform): 450 kHz(455 kHz)	Adjust AM I.F.T. (above mentioned aligning position) so that maximum and symmetrical wave form can be obtained. In this case, the wavehead should be appeared at the center marker (450 kHz) on the scope of Sweeper.
	
2. FM IF ALIGNMENT (The unit should not usually require adjustment. Follow the steps below when adjustments are necessary).	
2-1 Conditions of the receiver	
(1) Power source:	Same as mentioned in item 1-1
(2) Function switch position:	RADIO
(3) Band select switch:	FM
(4) Volume control:	Minimum gain position
(5) SEA control:	Center position
(6) Reception frequency:	Set the reception frequency to the highest position and to the position where the signal does not enter.
2-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP5
(2) Tuner output:	Positive side to TP6 Negative side to TP7
NOTE	
a) Attach a capacitor (30 pF) and resistor (33 k Ω) to the positive side cable which shall be led from Sweeper output.	
b) Attach a resistor (100 k Ω) in series to the positive side cable which shall be led from Sweeper input.	
2-3 Aligning position:	Discriminate Waveform: T1 ("S" curve waveform)
2-4 Alignment (Waveform):	
	
NOTE	
The discriminator's CF is yellow. Do not use one that is of another color.	Adjust the discriminate T1 so that above symmetrical IF waveform may be changed to balanced "S" curve waveform.

Item			Description		
3. AM RF ALIGNMENT					
3-1 Conditions of the receiver. (1) Power source: (2) Function switch position: (3) Volume control: (4) SEA control: (5) Variable capacitor:			Same as mentioned in item 1-1. RADIO 50 mW Center position Refer the following list shown in item 3-4.		
3-2 Conditions of SSG. (1) Modulation: (2) Frequency: (3) Output level of the attenuator in SSG:			Refer the basic condition Refer the following list shown in item 3-4. Approx. 50 mW		
3-3 Output measuring position:			Speaker terminals		
3-4 Alignment:					
Step	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	AM	Loop Antenna	520 kHz	Maximum Capacitor	L3
2			1750 kHz	Minimum Capacitor	TC3
3			Repeat 1, 2		
4			600 kHz	to be received 600 kHz (M2)	L4
5			1,500 kHz	to be received 1,500 kHz (M4)	TC4
6			Adjust the above aligning position (L4 & TC4) repeatedly so that the tuner can be obtained the best sensitivity.		
Item			Description		
4. FM RF ALIGNMENT					
4-1 Conditions of the receiver. (1) Power source: (2) Function switch position: (3) Band select switch: (4) Volume control: (5) SEA control: (6) Reception frequency:			Same as mentioned in item 1-1. RADIO FM 50 mW Center position Refer the following list shown in item 4-4.		
4-2 Condition of FM SSG. (1) Modulation: (2) Frequency:			Refer the basic condition Refer the following list shown in item 4-4.		
4-3 Connection of sweeper and the receiver. (1) Tuner input (2) Output measuring position			Positive side to TP1. Negative side to TP2. Speaker Terminal		
4-4 Alignment:					
Step	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	FM	75 Ω Unbalanced	87.5 MHz	Maximum Capacitor	L1
2			109 MHz	Minimum Capacitor	TC1
3			Repeat 1, 2.		
4			90 MHz	to be received 90 MHz	L2
5			106 MHz	to be received 106 MHz	TC-2
6			Adjust the above aligning position (L2 & TC-2) repeatedly so that the tuner can be obtained the best sensitivity.		
	FM MPX	"	Non adjustment: Confirm that the movement and separation are correct.		

■ CD Changer Adjustment

• State of CD unit

The term "State of CD Unit" refers to the state in which the CD mechanism and CD amplifier board (VMW1220) are assembled. Accordingly, maintenance and other service operations are performed in a "State of CD Unit".

- (1) When using the DC stabilization power source, connect FW702's terminals ⑥, ⑦ and ⑩ and ground them, then impress 9.1 V on terminal ⑧. Shortcircuiting FW701's terminals ⑤ and ⑥ will enable operation by remote control.
- (2) The audio output's load resistance is 47 kΩ. Also, inputting into AUX IN will enable monitoring.

• Tracking offset adjustment

Adjustment tools: Oscilloscope, normal disc

Adjustment procedures:

- (1) Connect the oscilloscope to the hot side TP503, and the earth side TP502 to the earth side.
- (2) Playback the normal disc and confirm that tracking error signals are generated.
- (3) As TP504 and TP502 stop 3 seconds after being short-circuited, and start the test mode (at this time, all LCDs will light) so that it will not stop, and so that adjustment can be easily made. Make sure to turn on the power after completed adjustment.

Note: Adjust VR501 so that the waveform will be symmetrical both above and below with respect to the zero level, and give DC coupling to the oscilloscope input.

• On the semi-fixed resistor equipped on the auto power control board

The semi-fixed resistor equipped on the auto power control board and fitted on the pickup is for laser power adjustment. This adjustment is for pair adjustment in conformance with the optical block's characteristics, so remember never to touch this semi-fixed resistor.

If the laser beam's power is low, this is conceivably due to the laser diode's life runout, so the pickup will have to be replaced. Remember that turning the semi-fixed resistor of a normal pickup will cause an overcurrent to damage the pickup.

• Grating Adjustment

Grating adjustment is performed in units of components to attain their optimum states. Improper adjustment will cause the laser beams to go off-track any may render musical performance impossible.

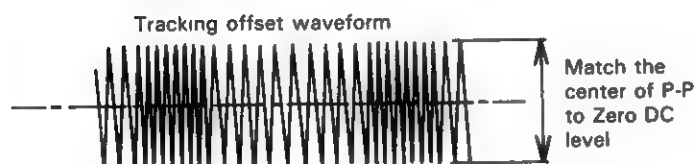


Fig. 8-4

■ CD Section : Location of Adjustment

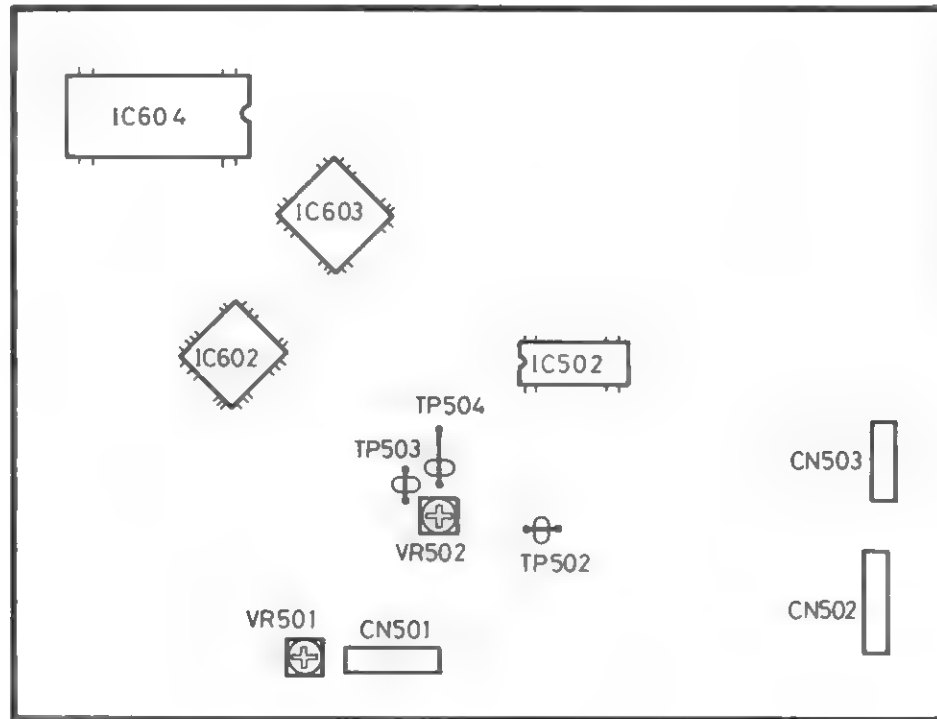


Fig. 8-5

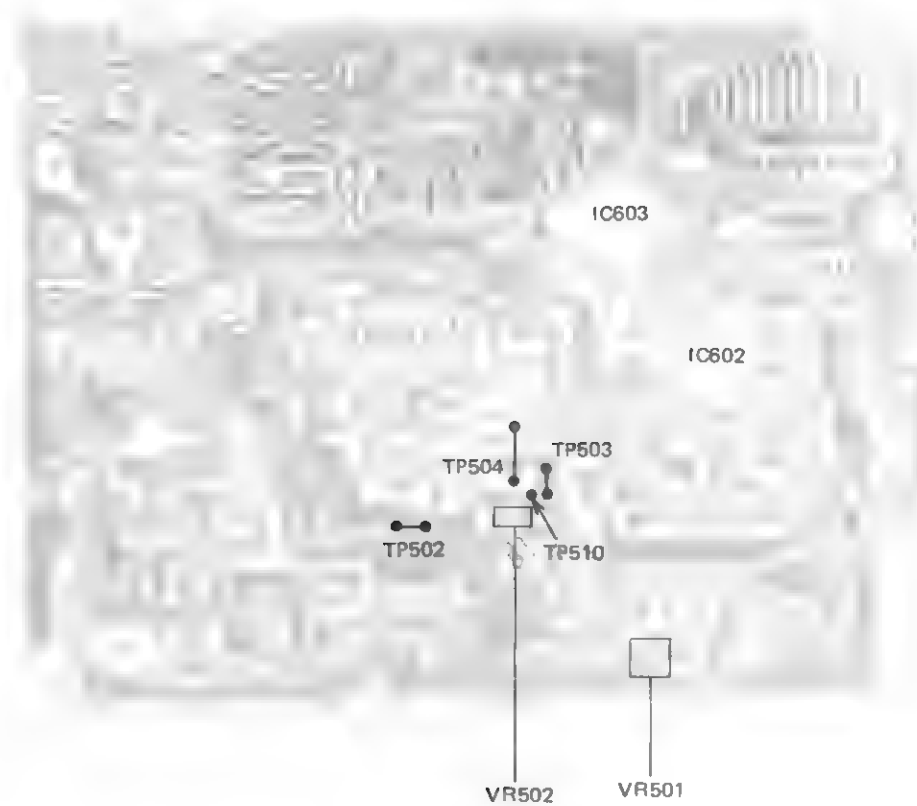
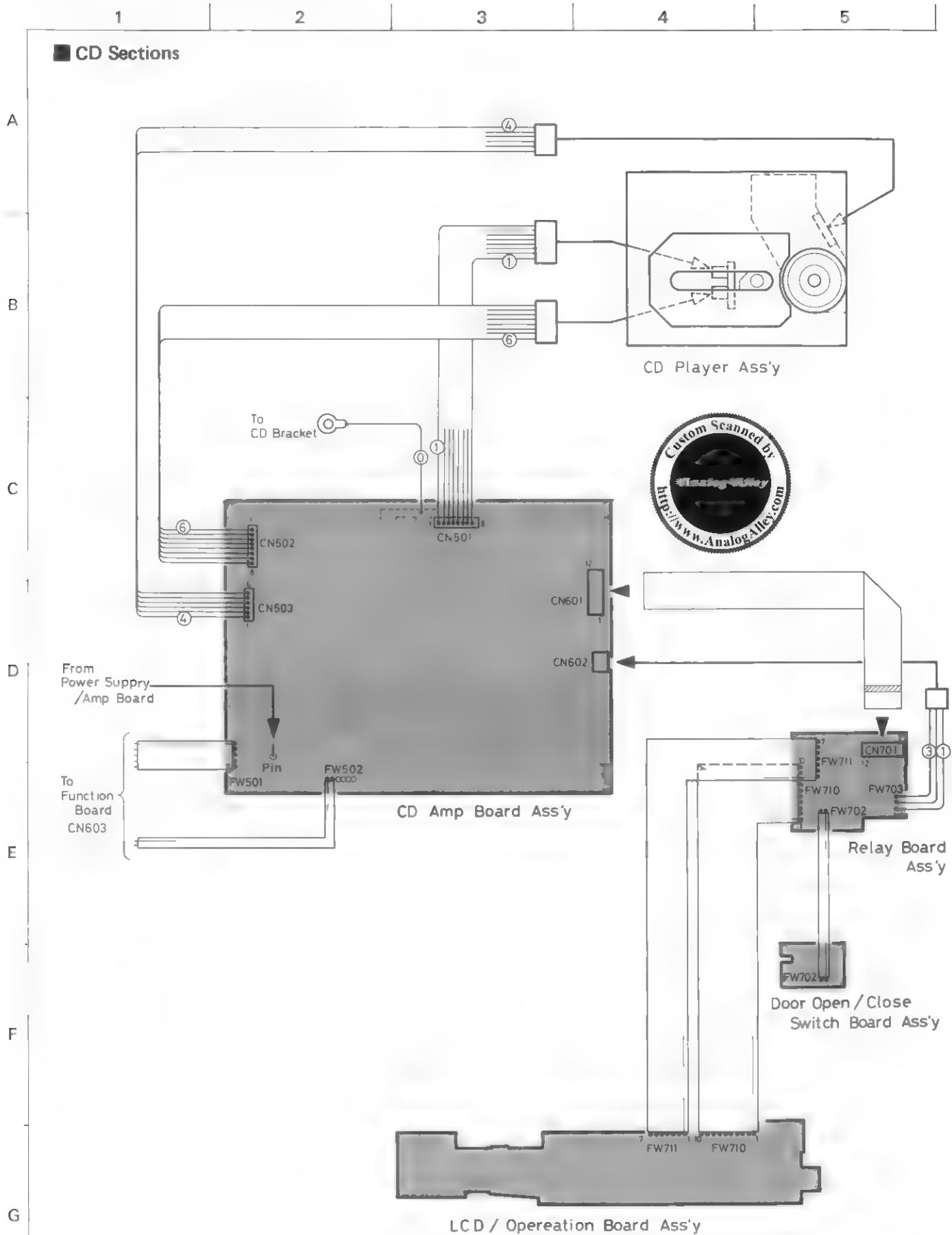


Fig. 8-6

9 Wiring Connections





10 Standard Schematic Diagram (Tuner Section : Drawing number VDH7054-001TW)

	1	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	---	----

A

B

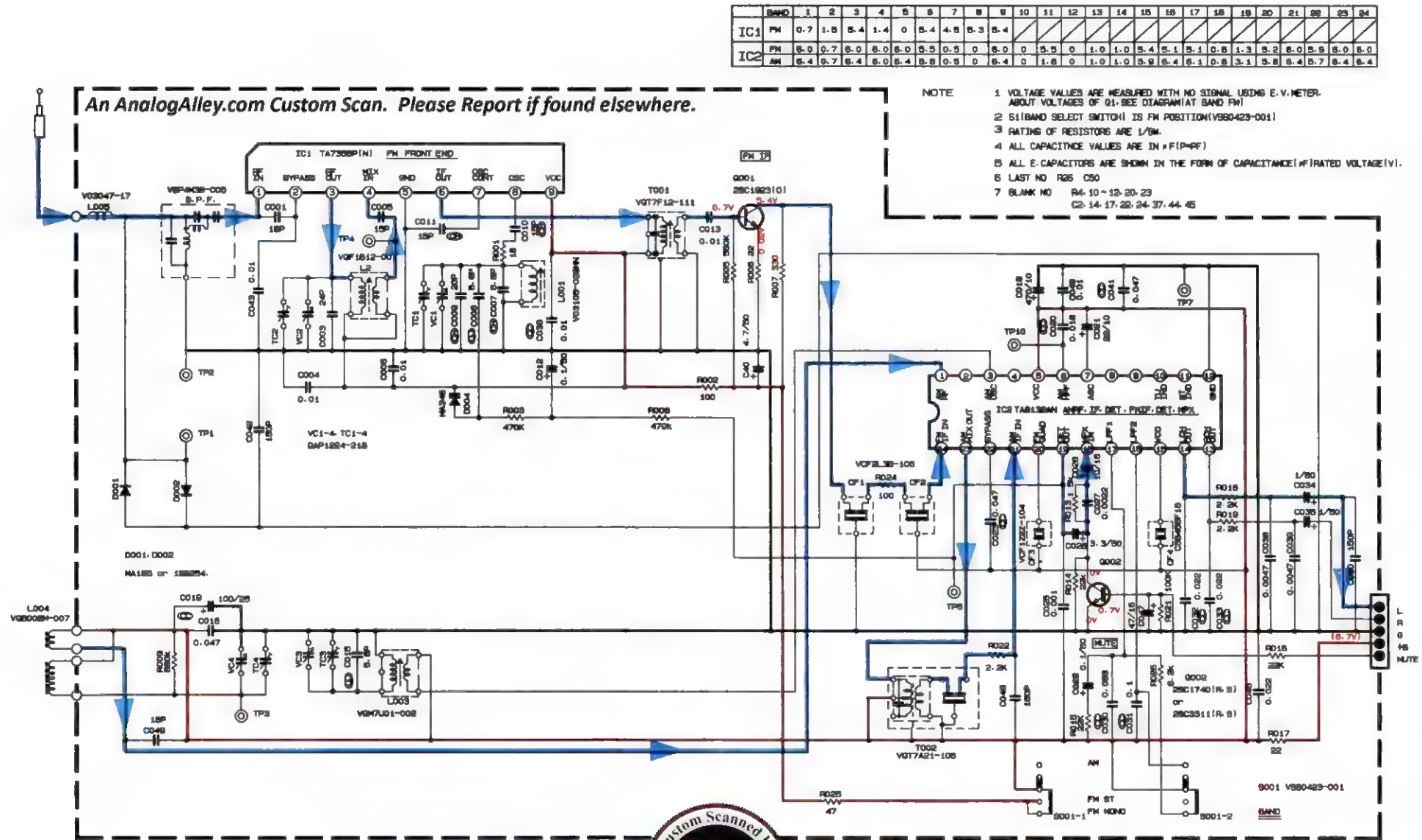
C

D

E

F

G

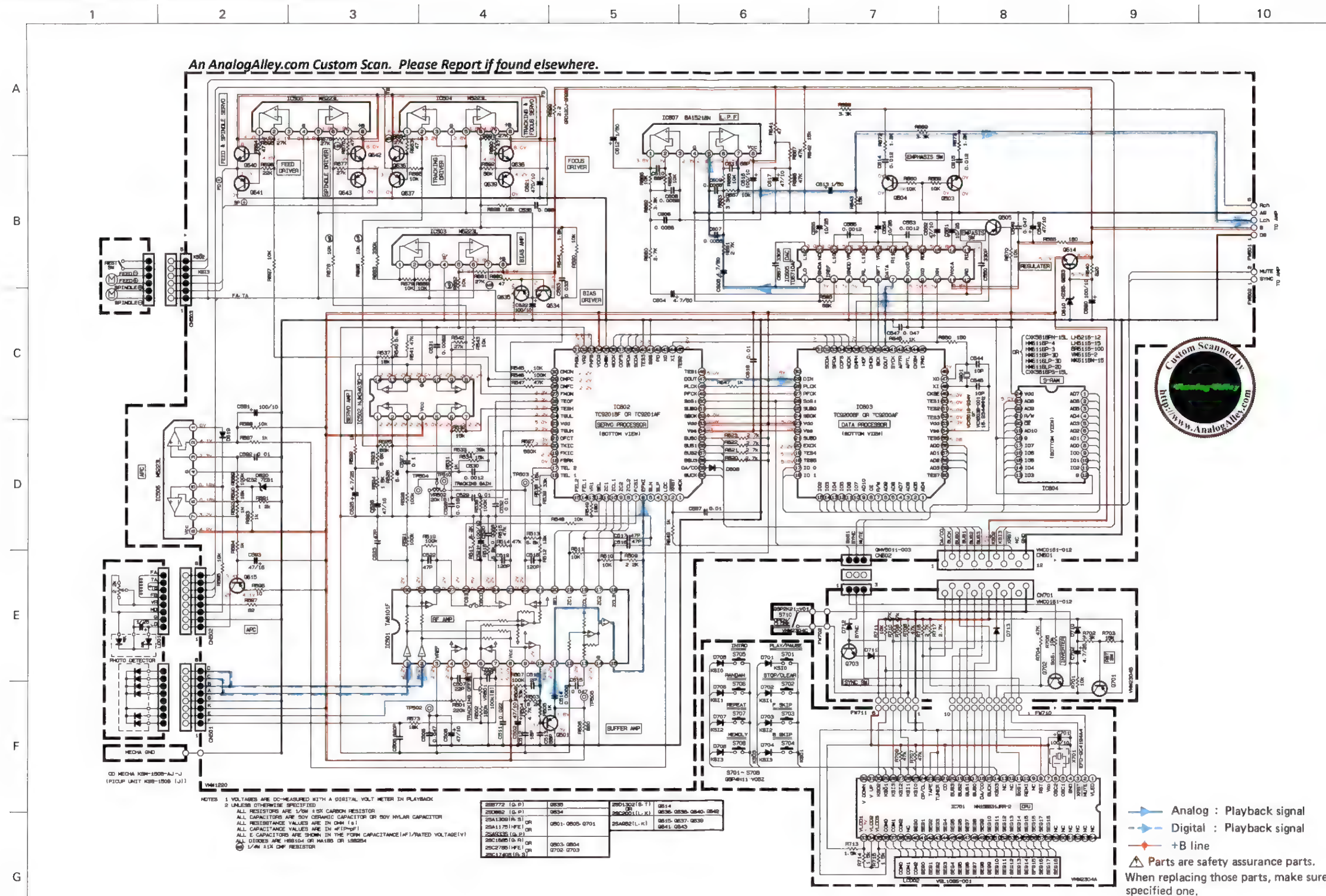


	BWD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM	0.7	1.5	5.4	1.4	0	5.4	4.8	5.3	5.4															
	AM	5.0	5.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0	1.0	1.0	5.4	5.1	5.1	0.8	1.3	3.2	5.0	5.9	5.0	5.0	5.0	5.0
IC2	FM	5.4	5.7	5.4	5.0	5.4	5.0	5.0	5.0	5.4	0	1.8	0	1.0	1.0	5.9	5.4	5.1	0.8	3.1	5.8	5.4	5.7	5.4	5.4
	AM	5.0	5.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0	1.0	1.0	5.4	5.1	5.1	0.8	1.3	3.2	5.0	5.9	5.0	5.0	5.0	5.0

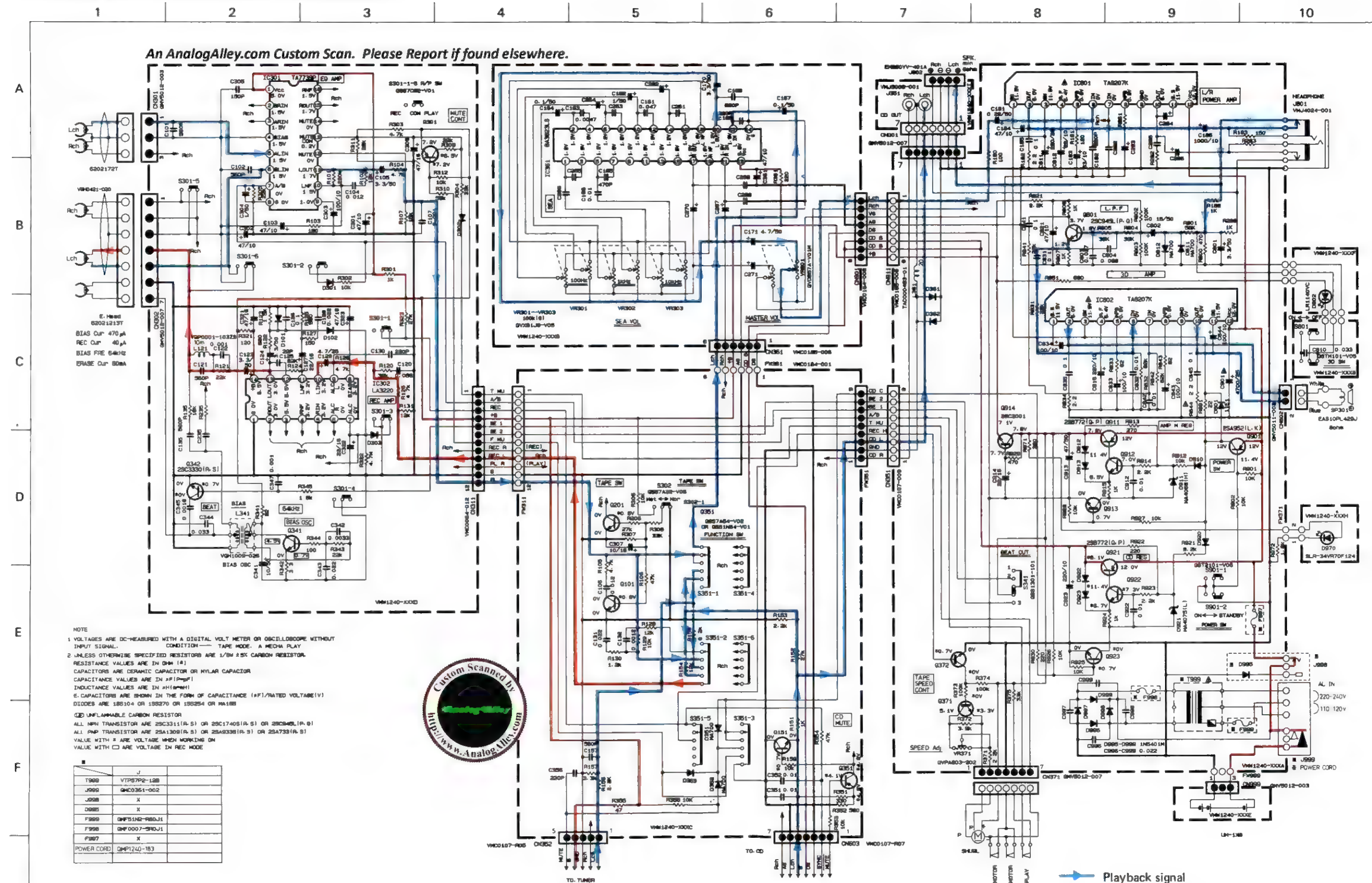


FM/AM Radio signal
+B line
Parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

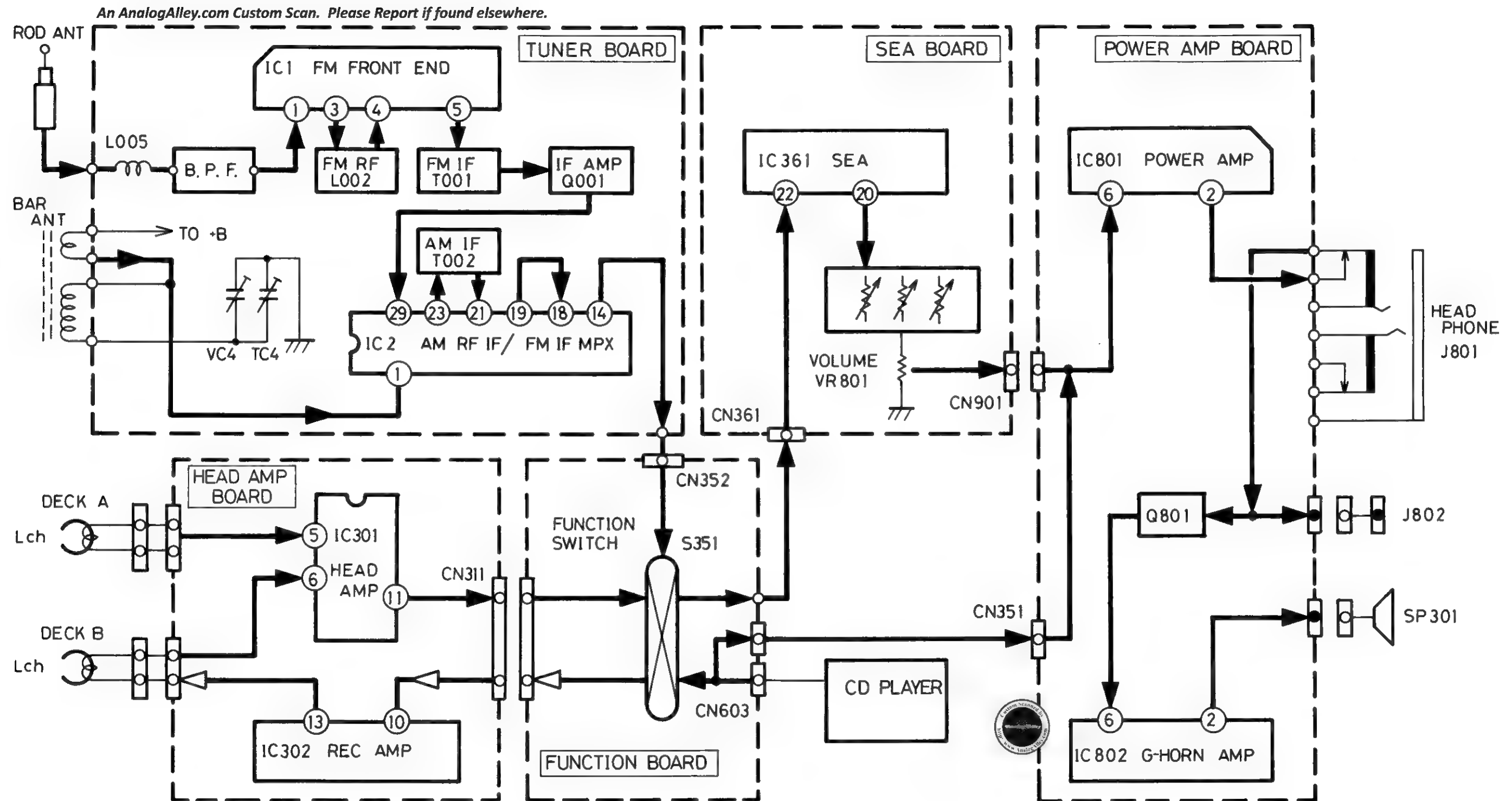
(Amplifier Section : Drawing number VDH7054-001AV)



(CD Amplifier Section : Drawing number VDH7054-001CV)



11 Block Diagram



12 Location of P.C. Board Parts and Parts List

■ Power Supply/Amplifier Board
Drawing No. VMW1240A

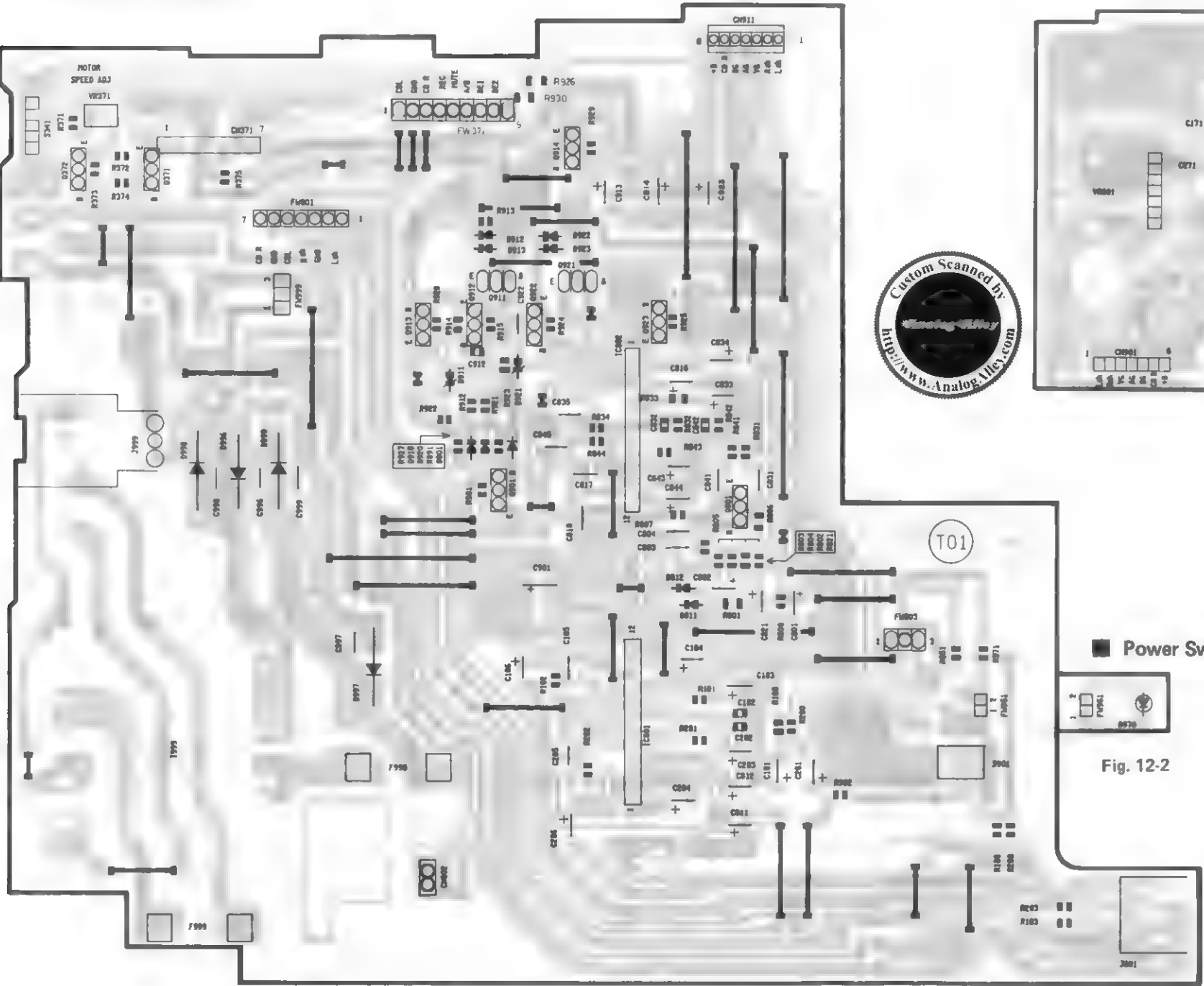


Fig. 12-1

■ SEA/Volume Board
Drawing No. VMW1240B

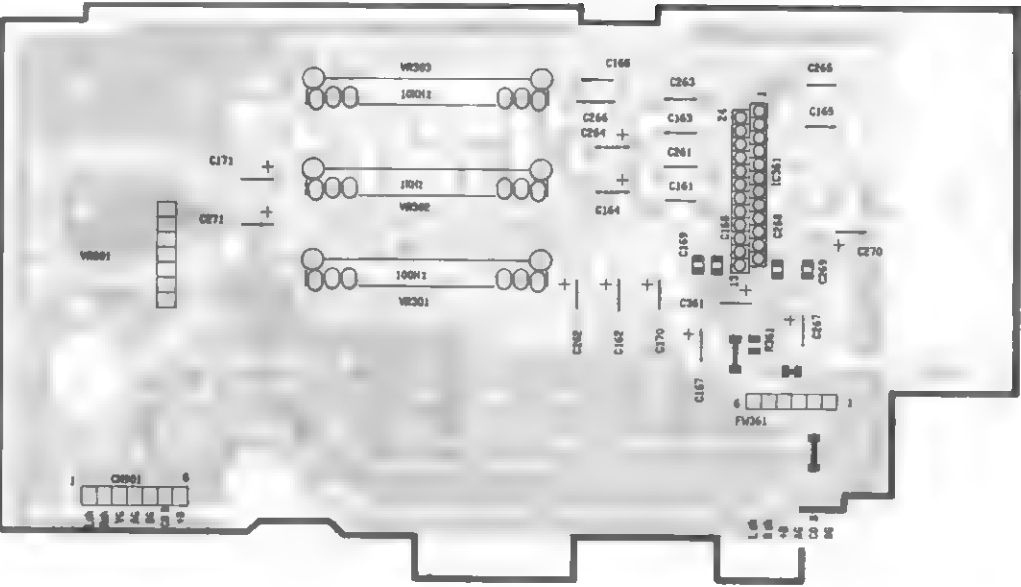


Fig. 12-3

■ Power Switch Indicator Board



Fig. 12-2

■ Function Board : Drawing No. VMW1240C

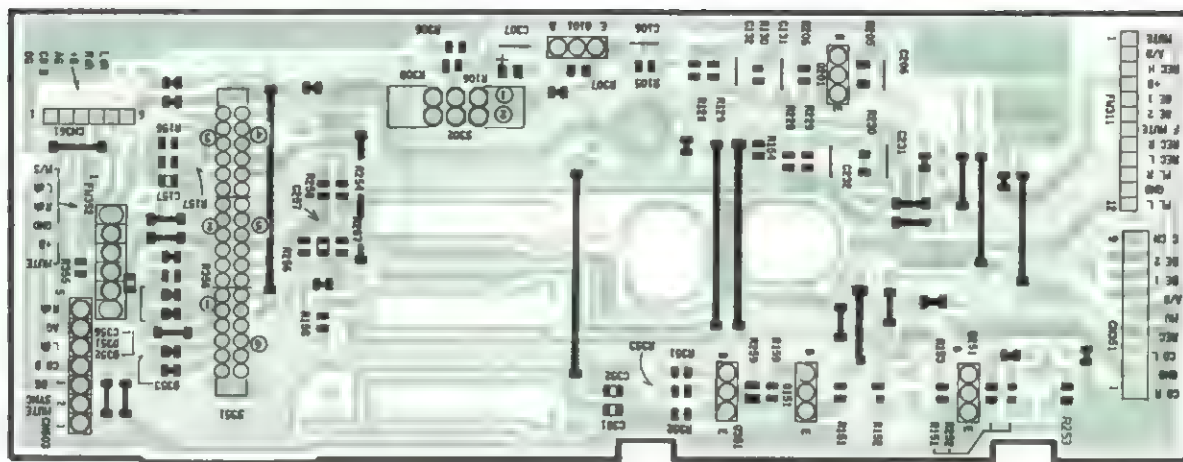


Fig. 12-4



■ Pre-amplifier Board : Drawing No. VMW1240D

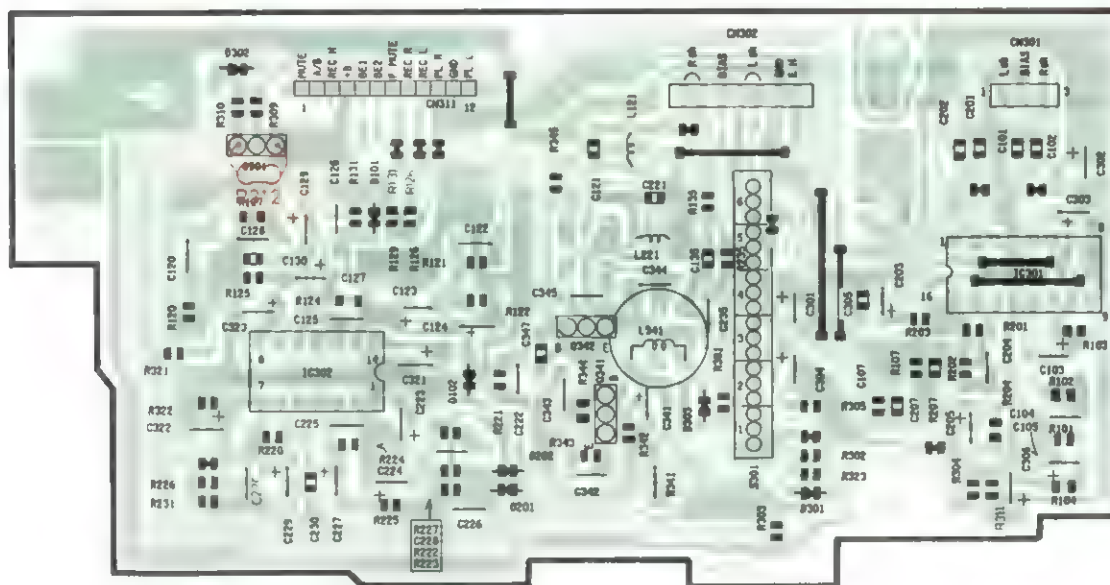


Fig. 12-5

■ Battery Contact Board
Drawing No. VMW1240E

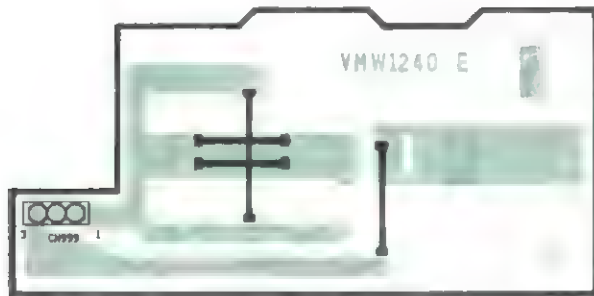


Fig. 12-6

■ 3D Indicator Board
Drawing No. VMW1240F

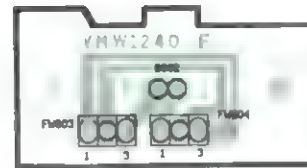


Fig. 12-8

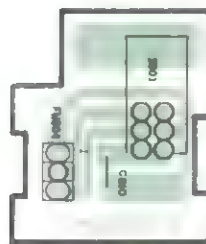


Fig. 12-7

■ CD OUT/Speaker Terminal Board
Drawing No. VMW1240H



Fig. 12-9

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

■ Main P.C. Board Parts List : Drawing No. VMW1240A-J

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	CN301	QMV5012-003	CONNECTOR		
	CN302	QMV5012-007	CONNECTOR		
	CN311	VMC0064-012	CONNECTOR		
	CN351	VMC0107-009	CONNECTOR		
	CN361	VMC0185-006	CONNECTOR		
	CN371	QMV5012-007	CONNECTOR		
	CN603	VMC0107-R07	SOCKET		
	CN801	QMV5012-007	CONNECTOR		
	CN802	QMV5011-002	CONNECTOR		
	CN901	VMC0164-008	CONNECTOR		
	CN911	VMC0165-008	CONNECTOR		
	CN999	QMV5012-003	CONNECTOR		
	C101	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C102	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C103	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C104	QFV41HJ-123	TF.CAPACITOR		.012MF 5% 50V
	C105	QETC1HM-335ZN	E.CAPACITOR		3.3MF 20% 50V
	C106	QCC11EM-123	C.CAPACITOR		.012MF 20% 25V
	C107	QCB1HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C120	QFV71HJ-563ZM	TF.CAPACITOR		.056MF 5% 50V
	C121	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C122	QCY41HK-102	C.CAPACITOR		1000PF 10% 50V
	C123	QER61HM-335Z	E.CAPACITOR		3.3MF 20% 50V
	C124	QER61HM-335Z	E.CAPACITOR		3.3MF 20% 50V
	C125	QCS11HJ-220	C.CAPACITOR		22PF 5% 50V
	C126	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C127	QER41CM-226	E.CAPACITOR		22MF 20% 16V
	C128	QFV41HJ-223	TF.CAPACITOR		.022MF 5% 50V
	C129	QER41EM-475	E.CAPACITOR		4.7MF 20% 25V
	C130	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C131	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C132	QCY41HK-122	C.CAPACITOR		1200PF 10% 50V
	C135	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C157	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C161	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C162	QER41HM-105	E.CAPACITOR		1.0MF 20% 50V
	C163	QCY41HK-472	C.CAPACITOR		4700PF 10% 50V
	C164	QETC1HM-104ZN	E.CAPACITOR		.10MF 20% 50V
	C165	QCS11HJ-471	C.CAPACITOR		470PF 5% 50V
	C166	QCC11EM-103	C.CAPACITOR		.010MF 20% 25V
	C167	QETC1HM-104ZN	E.CAPACITOR		.10MF 20% 50V
	C168	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C169	QCB1HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C170	QETC1HM-335ZN	E.CAPACITOR		3.3MF 20% 50V
	C171	QETC1HM-475ZN	E.CAPACITOR		4.7MF 20% 50V
	C181	QETC1HM-104ZN	E.CAPACITOR		.10MF 20% 50V
	C182	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C183	QETC1AM-336ZN	E.CAPACITOR		33MF 20% 10V
	C184	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C185	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	C186	QETC1AM-108ZM	E CAPACITOR		1000MF 20% 10V
	C201	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C202	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C203	QETC1AM-476ZM	E.CAPACITOR		47MF 20% 10V
	C204	QFV41HJ-123	TF CAPACITOR		.012MF 5% 50V
	C205	QETC1HM-335ZM	E.CAPACITOR		3.3MF 20% 50V
	C206	QCC11EM-123	C.CAPACITOR		.012MF 20% 25V
	C207	QCB1HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C220	QFV71HJ-563ZM	TF.CAPACITOR		.056MF 5% 50V
	C221	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C222	QCY41HK-102	C.CAPACITOR		1000PF 10% 50V
	C223	QER61HM-335Z	E CAPACITOR		3.3MF 20% 50V
	C224	QER61HM-335Z	E CAPACITOR		3.3MF 20% 50V
	C225	QCS11HJ-220	C.CAPACITOR		22PF 5% 50V
	C226	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C227	QER41CM-226	E CAPACITOR		22MF 20% 16V
	C228	QFV41HJ-223	TF.CAPACITOR		.022MF 5% 50V
	C229	QER41EM-475	E CAPACITOR		4.7MF 20% 25V
	C230	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C231	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C232	QCY41HK-122	C.CAPACITOR		1200PF 10% 50V
	C235	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C257	QCB1HK-561Y	C.CAPACITOR		560PF 10% 50V
	C261	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C262	QER41HM-105	E CAPACITOR		1.0MF 20% 50V
	C263	QCY41HK-472	C.CAPACITOR		4700PF 10% 50V
	C264	QETC1HM-104ZM	E.CAPACITOR		.10MF 20% 50V
	C265	QCS11HJ-471	C.CAPACITOR		470PF 5% 50V
	C266	QCC11EM-103	C.CAPACITOR		.010MF 20% 25V
	C267	QETC1HM-104ZM	E.CAPACITOR		.10MF 20% 50V
	C268	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C269	QCB1HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C270	QETC1HM-335ZM	E.CAPACITOR		3.3MF 20% 50V
	C271	QETC1HM-475ZM	E.CAPACITOR		4.7MF 20% 50V
	C281	QETC1HM-104ZM	E.CAPACITOR		.10MF 20% 50V
	C282	QCB1HK-221Y	C.CAPACITOR		220PF 10% 50V
	C283	QETC1AM-336ZM	E CAPACITOR		33MF 20% 10V
	C284	QETC1AM-476ZM	E.CAPACITOR		47MF 20% 10V
	C285	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C286	QETC1AM-108ZM	E CAPACITOR		1000MF 20% 10V
	C301	QETC1AM-476ZM	E.CAPACITOR		47MF 20% 10V
	C302	QETC1AM-476ZM	E.CAPACITOR		47MF 20% 10V
	C303	QETC1AM-107ZM	E.CAPACITOR		100MF 20% 10V
	C304	QETC1HM-105ZM	E.CAPACITOR		1.0MF 20% 50V
	C305	QCB1HK-151Y	C.CAPACITOR		150PF 10% 50V
	C306	QETC1CM-476ZM	E.CAPACITOR		47MF 20% 16V
	C307	QETC1CM-106ZM	E.CAPACITOR		10MF 20% 16V
	C321	QER41CM-476	E.CAPACITOR		47MF 20% 16V
	C322	QER41CM-226	E CAPACITOR		22MF 20% 16V
	C323	QER41CM-476	E.CAPACITOR		47MF 20% 16V

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	C341	QETC1HM-106ZN	E.CAPACITOR		10MF 20% 50V
	C342	QCY41HK-332	C CAPACITOR		3300PF 10% 50V
	C343	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C344	QFV41HJ-333	TF.CAPACITOR		.033MF 5% 50V
	C345	QCY41HK-182	C.CAPACITOR		1800PF 10% 50V
	C347	QCB11HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C351	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C352	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C356	QCB11HK-221Y	C.CAPACITOR		220PF 10% 50V
	C361	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C801	QETC1HM-335ZN	E.CAPACITOR		3.3MF 20% 50V
	C802	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C803	QCC31EM-273ZV	C.CAPACITOR		.027MF 20% 25V
	C804	QCC11EM-683	C.CAPACITOR		.068MF 20% 25V
	C810	QCC11EM-333	C.CAPACITOR		.033MF 20% 25V
	C811	QETC1EM-227ZM	E.CAPACITOR		220MF 20% 25V
	C812	QETC1AM-226ZN	E.CAPACITOR		22MF 20% 10V
	C816	QETC1AM-227ZN	E CAPACITOR		220MF 20% 10V
	C817	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C818	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C821	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C831	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C832	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C833	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C834	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C835	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C841	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C842	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C843	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C844	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C845	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
△	C901	QETB1EM-478	E.CAPACITOR		4700MF 20% 25V
	C912	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C913	QETC1HM-476ZN	E CAPACITOR		47MF 20% 50V
	C914	QETC1CM-226ZN	E.CAPACITOR		22MF 20% 16V
	C922	QCVB1CM-103Y	C.CAPACITOR		.010MF 20% 16V
	C923	QETC1AM-227ZN	E CAPACITOR		220MF 20% 10V
	C996	QCF11HP-223	C.CAPACITOR		.022MF +100:-0% 50V
	C997	QCF11HP-223	C.CAPACITOR		.022MF +100:-0% 50V
	C998	QCF11HP-223	C.CAPACITOR		.022MF +100:-0% 50V
	C999	QCF11HP-223	C.CAPACITOR		.022MF +100:-0% 50V
	D101	MA165	SI DIODE		
	D102	MA165	SI DIODE		
	D201	MA165	SI DIODE		
	D202	MA165	SI DIODE		
	D301	MA165	SI DIODE		
	D302	MA165	SI DIODE		
	D303	MA165	SI DIODE		
	D351	MA700	ZENER DIODE		
	D352	MA700	ZENER DIODE		

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	D353	MA165	SI DIODE		
	D361	MA165	SI DIODE		
	D362	MA165	SI DIODE		
	D801	11E1	SI DIODE		
	D802	LR-1140VC	L.E.D.		
	D811	MA700	ZENER DIODE		
	D812	MA700	ZENER DIODE		
	D910	MA165	SI DIODE		
	D911	MA4068(H)	Z DIODE		
	D912	MA165	SI DIODE		
	D913	MA165	SI DIODE		
	D920	MA165	SI DIODE		
	D921	MA4075(L)	Z DIODE		
	D922	MA165	SI DIODE		
	D923	MA165	SI DIODE		
	D970	SLR-34VR70F124	LED I.M		
	D996	1N5401M	DIODE		
	D997	1N5401M	DIODE		
	D998	1N5401M	DIODE		
	D999	1N5401M	DIODE		
	FW352	VWS105-45B33K	EF FLAT WIRE		
	FW361	VMC0184-001	CONNECTOR		
	IC301	TA7739P	IC		
	IC302	LA3220	IC		
	IC361	BA3823LS	IC		
△	IC801	TA8207K	IC		
△	IC802	TA8207K	IC		
	J351	VMJ3009-001	JACK ASSY		
	J801	VMJ4024-001	JACK		
	J802	EMB90YV-401A	SPK. TERMINAL		
	J999	QMC0361-002	AC SOCKET		
	L121	VQP0001-103S	INDUCTOR		
	L221	VQP0001-103S	INDUCTOR		
	L341	VQH1009-026	OSC COIL		
	L361	TAC000493-01	INDUCTOR		
	Q101	2SC3311	TRANSISTOR		
	Q151	2SC3311	TRANSISTOR		
	Q201	2SC3311	TRANSISTOR		
	Q251	2SC3311	TRANSISTOR		
	Q301	2SA1175	TRANSISTOR		
	Q341	2SC3311	TRANSISTOR		
	Q342	2SC3311	TRANSISTOR		
	Q351	2SA1175	TRANSISTOR		
	Q371	2SC3311	TRANSISTOR		
	Q372	2SC3311	TRANSISTOR		
	Q801	2SC945L(P,Q)	TRANSISTOR		
	Q901	2SA952(L,K)	TRANSISTOR		
△	Q911	2SB772(Q,P)	TRANSISTOR		
	Q912	2SC3311	TRANSISTOR		
	Q913	2SC3311	TRANSISTOR		

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME		REMARKS
△	Q914	2SC2001(L,K)	TRANSISTOR		
△	Q921	2SB772(Q,P)	TRANSISTOR		
	Q922	2SC3311	TRANSISTOR		
	Q923	2SC3311	TRANSISTOR		
	R101	QRD161J-224	C.RESISTOR		220K 5% 1/6W
	R102	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R103	QRD161J-181	C.RESISTOR		180 5% 1/6W
	R104	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R105	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R106	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R107	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R120	QRD161J-393	C.RESISTOR		39K 5% 1/6W
	R121	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R122	QRD161J-681	C.RESISTOR		680 5% 1/6W
	R123	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R124	QRD161J-823	C.RESISTOR		82K 5% 1/6W
	R125	QRD161J-561	C.RESISTOR		560 5% 1/6W
	R126	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R127	QRD161J-151	C.RESISTOR		150 5% 1/6W
	R128	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R129	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R130	QRD161J-122	C.RESISTOR		1.2K 5% 1/6W
	R131	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R135	QRD161J-183	C.RESISTOR		18K 5% 1/6W
	R151	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R152	QRD161J-273	C.RESISTOR		27K 5% 1/6W
	R153	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R154	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R156	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R157	QRD161J-332	C.RESISTOR		3.3K 5% 1/6W
	R158	QRD161J-822	C.RESISTOR		8.2K 5% 1/6W
	R159	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R180	QRD161J-101	C.RESISTOR		100 5% 1/6W
	R181	QRD161J-121	CARBON RESISTOR		120 5% 1/6W
	R182	QRD161J-2R2	CARBON RESISTOR		2.2 5% 1/6W
	R183	QRD161J-151	CARBON RESISTOR		150 5% 1/6W
	R188	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R201	QRD161J-224	C.RESISTOR		220K 5% 1/6W
	R202	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R203	QRD161J-181	C.RESISTOR		180 5% 1/6W
	R204	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R205	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R206	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R207	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R220	QRD161J-393	C.RESISTOR		39K 5% 1/6W
	R221	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R222	QRD161J-681	C.RESISTOR		680 5% 1/6W
	R223	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R224	QRD161J-823	C.RESISTOR		82K 5% 1/6W
	R225	QRD161J-561	C.RESISTOR		560 5% 1/6W

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	R226	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R227	QRD161J-151	C RESISTOR		150 5% 1/6W
	R228	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R229	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R230	QRD161J-122	C RESISTOR		1.2K 5% 1/6W
	R231	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R235	QRD161J-183	C.RESISTOR		18K 5% 1/6W
	R251	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R252	QRD161J-273	C RESISTOR		27K 5% 1/6W
	R253	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R254	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R256	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R257	QRD161J-332	C.RESISTOR		3.3K 5% 1/6W
	R258	QRD161J-822	C.RESISTOR		8.2K 5% 1/6W
	R259	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R280	QRD161J-101	C.RESISTOR		100 5% 1/6W
	R281	QRD161J-121	CARBON RESISTOR		120 5% 1/6W
	R282	QRD161J-2R2	CARBON RESISTOR		2.2 5% 1/6W
	R283	QRD161J-151	CARBON RESISTOR		150 5% 1/6W
	R288	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R301	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R302	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R303	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R304	QRD161J-333	C.RESISTOR		33K 5% 1/6W
	R305	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R306	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R307	QRD161J-273	C RESISTOR		27K 5% 1/6W
	R308	QRD161J-333	C.RESISTOR		33K 5% 1/6W
	R309	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R310	QRD161J-563	C RESISTOR		56K 5% 1/6W
	R311	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R312	QRD161J-103	C RESISTOR		10K 5% 1/6W
	R321	QRD161J-121	C.RESISTOR		120 5% 1/6W
	R322	QRD161J-475	C RESISTOR		4.7M 5% 1/6W
	R323	QRD161J-273	C RESISTOR		27K 5% 1/6W
	R341	QRD14CJ-820SX	C RESISTOR		82 5% 1/4W
	R342	QRD161J-3R3	C.RESISTOR		3.3 5% 1/6W
	R343	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R344	QRD161J-101	C.RESISTOR		100 5% 1/6W
	R345	QRD161J-182	C RESISTOR		1.8K 5% 1/6W
	R351	QRD161J-331	C.RESISTOR		330 5% 1/6W
	R352	QRD161J-561	C RESISTOR		560 5% 1/6W
	R353	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R355	QRD161J-470	C RESISTOR		47 5% 1/6W
	R356	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R361	QRD161J-221	C RESISTOR		220 5% 1/6W
	R371	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R372	QRD161J-392	C.RESISTOR		3.9K 5% 1/6W
	R373	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R374	QRD161J-104	C.RESISTOR		100K 5% 1/6W

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	REF.	PARTS NO.	PARTS NAME	REMARKS
	R375	QRD161J-333	C.RESISTOR	33K 5% 1/6W
	R800	QRD161J-471	C.RESISTOR	470 5% 1/6W
	R801	QRD161J-563	C.RESISTOR	56K 5% 1/6W
	R802	QRD161J-104	C.RESISTOR	100K 5% 1/6W
	R803	QRD161J-104	C.RESISTOR	100K 5% 1/6W
	R804	QRD161J-393	C.RESISTOR	39K 5% 1/6W
	R805	QRD161J-393	C.RESISTOR	39K 5% 1/6W
	R806	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R807	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R821	QRD161J-222	C.RESISTOR	2.2K 5% 1/6W
	R831	QRD161J-223	C.RESISTOR	22K 5% 1/6W
	R832	QRD161J-823	C.RESISTOR	82K 5% 1/6W
	R833	QRD161J-820	C.RESISTOR	82 5% 1/6W
	R834	QRD161J-2R2	C.RESISTOR	2.2 5% 1/6W
	R841	QRD161J-223	C.RESISTOR	22K 5% 1/6W
	R842	QRD161J-823	C.RESISTOR	82K 5% 1/6W
	R843	QRD161J-820	C.RESISTOR	82 5% 1/6W
	R844	QRD161J-2R2	C.RESISTOR	2.2 5% 1/6W
	R851	QRD161J-681	C.RESISTOR	680 5% 1/6W
	R891	QRD161J-220	CARBON RESISTOR	22 5% 1/6W
	R901	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R902	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R912	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R913	QRD161J-271	C.RESISTOR	270 5% 1/6W
	R914	QRD161J-222	C.RESISTOR	2.2K 5% 1/6W
	R915	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R921	QRD161J-822	C.RESISTOR	8.2K 5% 1/6W
	R922	QRD161J-221	C.RESISTOR	220 5% 1/6W
	R923	QRD161J-222	C.RESISTOR	2.2K 5% 1/6W
	R924	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R925	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R926	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R927	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R928	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R929	QRD161J-471	C.RESISTOR	470 5% 1/6W
	R930	QRD161J-221	C.RESISTOR	220 5% 1/6W
	R971	QRD161J-391	C.RESISTOR	390 5% 1/6W
	R972	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W
	S301	QSS7C62-V01	SLIDE SW	
	S302	QSS7A22-V06	SLIDE SW	
	S341	QSS1301-101	SLIDE SWITCH	
	S351	QSS1N64-V01	SLIDE SW	
	S701	QSS7A22-V06	SLIDE SW	
	S801	QSTM101-V05	PUSH SW	
	S901	QST2101-V06	PUSH SWITCH	
	VR301	QVXB1JG-V05	V.RESISTOR	
	VR302	QVXB1JG-V05	V.RESISTOR	
	VR303	QVXB1JG-V05	V.RESISTOR	
	VR371	QVPA603-202M	V.RESISTOR	
	VR801	QVDB57A-V01M	V.RESISTOR	

Tuner Board : Drawing No. VMW2301

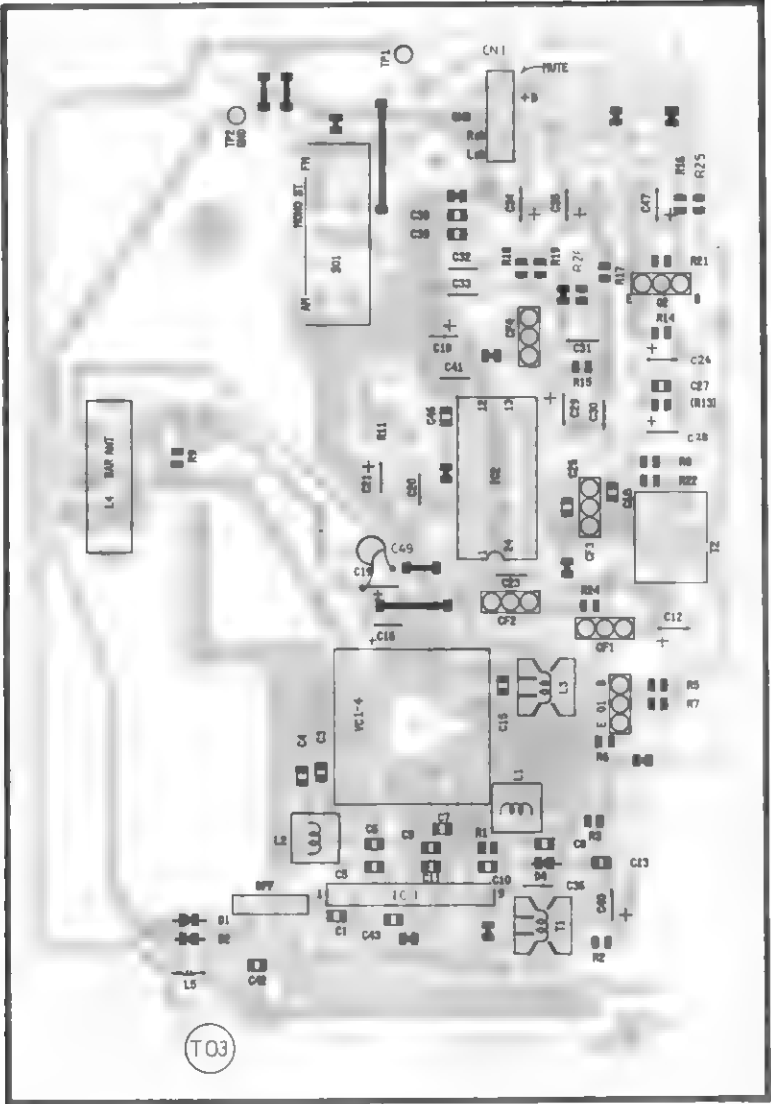


Fig. 12-10

■ Tuner Board Parts List : Drawing No. VMW2301

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	BPF1	VBP4M3B-005	BP FILTER		
	CF04	CSB456F18	CERA LOCK		
	CF03	VCF122Z-104	C FILTER KIT		
	CN01	VMC0107-005	CONNECTOR		
	C001	QCS11HJ-180	C CAPACITOR		18PF 5% 50V
	C003	QCS11HJ-240	C.CAPACITOR		24PF 5% 50V
	C004	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C005	QCS11HJ-150	C.CAPACITOR		15PF 5% 50V
	C006	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C007	QCT05CH-200	C.CAPACITOR		20PF 5% 50V
	C008	QCT30UJ-5R6Y	C.CAPACITOR		5.6PF 5% 50V
	C009	QCT30CH-5R6Y	C.CAPACITOR		5.6PF 5% 50V
	C010	QCT05CH-150	C.CAPACITOR		15PF 5% 50V
	C011	QCT05CH-150	C.CAPACITOR		15PF 5% 50V
	C012	QETC1HM-104ZN	E.CAPACITOR		.10MF 20% 50V
	C013	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C015	QCT30UJ-5R6Y	C.CAPACITOR		5.6PF 5% 50V
	C016	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C018	QETC1AM-477ZN	E.CAPACITOR		470MF 20% 10V
	C019	QETC1EM-107ZN	E.CAPACITOR		100MF 20% 25V
	C020	QCC11EM-333	C.CAPACITOR		.033MF 20% 25V
	C021	QETC1AM-226ZN	E.CAPACITOR		22MF 20% 10V
	C023	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C025	QCB1HK-102Y	C.CAPACITOR		1000PF 10% 50V
	C026	QETC1HM-335ZN	E.CAPACITOR		3.3MF 20% 50V
	C027	QCXB1CM-222Y	C.CAPACITOR		2200PF 20% 16V
	C028	QETC1CM-106ZN	E.CAPACITOR		10MF 20% 16V
	C029	QETC1HM-104ZN	E.CAPACITOR		.10MF 20% 50V
	C030	QCC11EM-683	C.CAPACITOR		.068MF 20% 25V
	C031	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C032	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C033	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C034	QETC1HM-105ZN	E.CAPACITOR		1.0MF 20% 50V
	C035	QETC1HM-105ZN	E.CAPACITOR		1.0MF 20% 50V
	C036	QCC11EM-103	C.CAPACITOR		.010MF 20% 25V
	C038	QCXB1CM-472Y	C.CAPACITOR		4700PF 20% 16V
	C039	QCXB1CM-472Y	C.CAPACITOR		4700PF 20% 16V
	C040	QETC1EM-475ZN	E.CAPACITOR		4.7MF 20% 25V
	C041	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C042	QCB1HK-151Y	C.CAPACITOR		150PF 10% 50V
	C043	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C046	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C047	QETC1CM-476ZN	E.CAPACITOR		47MF 20% 16V
	C048	QCB1HK-151Y	C.CAPACITOR		150PF 10% 50V
	C049	QCS11HJ-180	C.CAPACITOR		18PF 5% 50V
	D001	MA165	SI DIODE		
	D002	MA165	SI DIODE		
	D004	MA346	VC DIODE		
	IC01	TA7358P(N)	IC		
	IC02	TA8132AN	IC		

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	L001	V03105-029	OSC COIL		
	L002	VQF1B12-007	RF COIL		
	L003	VQM7U01-002	OSC COIL(MW)		
	L004	VQB008M-007	BAR ANTENA		
	L005	V03047-17	COIL		
	PWB	VMW2301-002	PW BOARD		
	Q001	2SC1923	TRANSISTOR		
	Q002	2SC3311	TRANSISTOR		
	R001	QRD161J-180	C RESISTOR		18 5% 1/6W
	R002	QRD161J-101	C.RESISTOR		100 5% 1/6W
	R003	QRD161J-474	C RESISTOR		470K 5% 1/6W
	R005	QRD161J-564	C RESISTOR		560K 5% 1/6W
	R006	QRD161J-220	C.RESISTOR		22 5% 1/6W
	R007	QRD161J-331	C.RESISTOR		330 5% 1/6W
	R008	QRD161J-474	C RESISTOR		470K 5% 1/6W
	R009	QRD161J-474	C RESISTOR		470K 5% 1/6W
	R013	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R014	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R015	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R016	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R017	QRD161J-220	C.RESISTOR		22 5% 1/6W
	R018	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R019	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R021	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R022	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R024	QRD161J-101	C.RESISTOR		100 5% 1/6W
	R025	QRD161J-470	C RESISTOR		47 5% 1/6W
	R026	QRD161J-822	C.RESISTOR		8.2K 5% 1/6W
	S001	VSS0423-001	SLIDE SW		
	TC1-4	QAP1224-218	V CAPACITOR		
	T001	VQT7F12-111	IFT		
	T002	VQT7A21-105	IFT		
	VC1-4	QAP1224-218	V CAPACITOR		

■ CD Amplifier Board : Drawing No. VMW1220

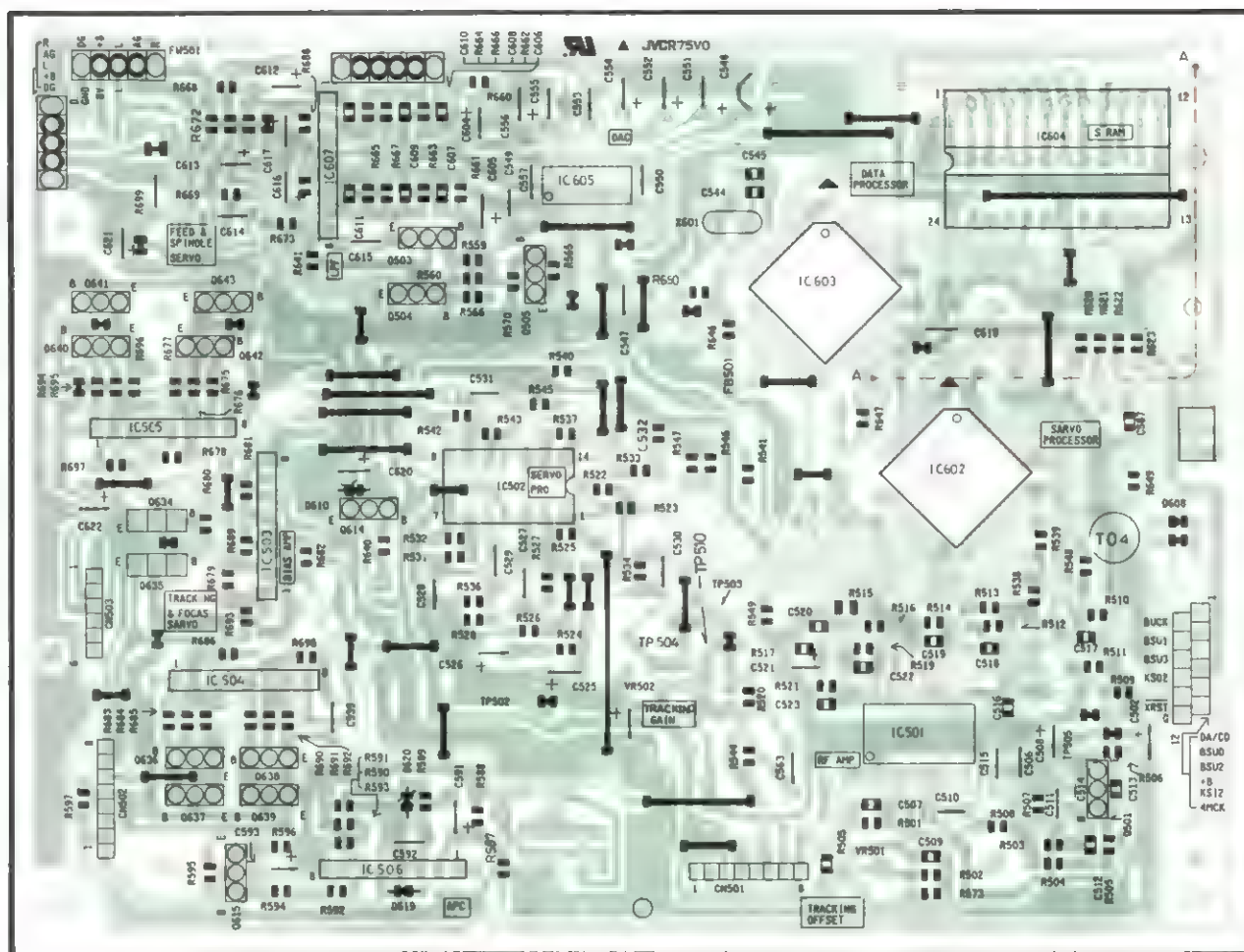


Fig. 12-11

■ CD Control Board Parts List : Drawing No. VMW2304

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	CN601	VMC0161-012	CONNECTOR		
	CN602	QMV5011-003	CONNECTOR		
	C502	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C505	QCB1HK-821Y	C.CAPACITOR		820PF 10% 50V
	C506	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C507	QCS11HJ-220	C.CAPACITOR		22PF 5% 50V
	C508	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C509	QCS11HJ-220	C.CAPACITOR		22PF 5% 50V
	C510	QCS11HJ-2R0	C.CAPACITOR		2.0PF 5% 50V
	C511	QCC11EM-223	C.CAPACITOR		.022MF 20% 25V
	C512	QCS11HJ-180	C CAPACITOR		18PF 5% 50V
	C513	QCS11HJ-560	C.CAPACITOR		56PF 5% 50V
	C514	QCY41HK-682	C.CAPACITOR		6800PF 10% 50V
	C515	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C516	QCS11HJ-470	C CAPACITOR		47PF 5% 50V
	C517	QCS11HJ-470	C CAPACITOR		47PF 5% 50V
	C518	QCB1HK-121Y	C.CAPACITOR		120PF 10% 50V
	C519	QCB1HK-121Y	C.CAPACITOR		120PF 10% 50V
	C520	QCY41HK-682	C.CAPACITOR		6800PF 10% 50V
	C521	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C522	QCS11HJ-470	C CAPACITOR		47PF 5% 50V
	C523	QCS11HJ-470	C CAPACITOR		47PF 5% 50V
	C525	QER41EM-475	E CAPACITOR		4.7MF 20% 25V
	C526	QER41CM-476	E.CAPACITOR		47MF 20% 16V
	C527	QFV41HJ-104	TF.CAPACITOR		.10MF 5% 50V
	C528	QFV41HJ-183	TF.CAPACITOR		.018MF 5% 50V
	C529	QFV41HJ-103	TF.CAPACITOR		.010MF 5% 50V
	C530	QCY41HK-122	C.CAPACITOR		1200PF 10% 50V
	C531	QCY41HK-822	C.CAPACITOR		8200PF 10% 50V
	C532	QCC11EM-103	C.CAPACITOR		.010MF 20% 25V
	C535	QFV41HJ-683	TF.CAPACITOR		.068MF 5% 50V
	C544	QCS11HJ-100	C CAPACITOR		10PF 5% 50V
	C545	QCS11HJ-100	C CAPACITOR		10PF 5% 50V
	C547	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C548	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C549	QCC11EM-473	C.CAPACITOR		.047MF 20% 25V
	C550	QCS11HJ-331	C.CAPACITOR		330PF 5% 50V
	C551	QETC1EM-106ZN	E.CAPACITOR		10MF 20% 25V
	C552	QETC1AM-476ZN	E.CAPACITOR		47MF 20% 10V
	C553	QCY41HK-122	C.CAPACITOR		1200PF 10% 50V
	C554	QETC1EM-106ZN	E.CAPACITOR		10MF 20% 25V
	C555	QCY41HK-122	C.CAPACITOR		1200PF 10% 50V
	C556	QETC1EM-106ZN	E.CAPACITOR		10MF 20% 25V
	C557	QCS11HJ-331	C.CAPACITOR		330PF 5% 50V
	C563	QFV41HJ-333	TF.CAPACITOR		.033MF 5% 50V
	C587	QCVB1CN-103Y	C.CAPACITOR		.010MF 30% 16V
	C591	QER61AM-107ZM	E CAPACITOR		100MF 20% 10V
	C592	QCC11EM-103	C.CAPACITOR		.010MF 20% 25V
	C593	QER41CM-476	E.CAPACITOR		47MF 20% 16V
	C604	QETC1HM-475ZN	E.CAPACITOR		4.7MF 20% 50V

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	C605	QETC1HM-475ZN	E.CAPACITOR		4.7MF 20% 50V
	C606	QCXB1CM-562Y	C CAPACITOR		5600PF 20% 16V
	C607	QCXB1CM-562Y	C CAPACITOR		5600PF 20% 16V
	C608	QCXB1CM-682Y	C.CAPACITOR		6800PF 20% 16V
	C609	QCXB1CM-682Y	C.CAPACITOR		6800PF 20% 16V
	C610	QCS11HJ-680	C.CAPACITOR		68PF 5% 50V
	C611	QCS11HJ-680	C.CAPACITOR		68PF 5% 50V
	C612	QETC1HM-105ZN	E.CAPACITOR		1.0MF 20% 50V
	C613	QETC1HM-105ZN	E.CAPACITOR		1.0MF 20% 50V
	C614	QCC11EM-123	C.CAPACITOR		.012MF 20% 25V
	C615	QCC11EM-123	C.CAPACITOR		.012MF 20% 25V
	C616	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C617	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C618	QCC11EM-104	C.CAPACITOR		.10MF 20% 25V
	C620	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	C621	QETC1AM-477ZN	E.CAPACITOR		470MF 20% 10V
	C622	QETC1AM-107ZN	E.CAPACITOR		100MF 20% 10V
	D608	MA165	SI DIODE		
	D610	HZS5.6EB3	Z DIODE		
	D619	MA165	SI DIODE		
	D620	HZS2.7EB1	Z DIODE		
	IC501	TA8101F	IC		
	IC502	NJM3403D-C	IC		
	IC503	M5223L	IC		
	IC504	M5223L	IC		
	IC505	M5223L	IC		
	IC602	TC9201AF	IC		
	IC603	TC9200AF	IC		
	IC604	CXK5816PN-15L	I.C		
	IC605	TD6710AF	IC		
	IC607	BA15218N	IC		
	Q501	2SA1175(HFE)	TRANSISTOR		
	Q503	2SC1685(Q,R)	TRANSISTOR		
	Q504	2SC1685(Q,R)	TRANSISTOR		
	Q505	2SA1175(HFE)	TRANSISTOR		
	Q614	2SD1302(S,T)	TRANSISTOR		
	Q615	2SA952(L,K)	TRANSISTOR		
	Q634	2SD882(Q,P)	TRANSISTOR		
	Q635	2SB772(Q,P)	TRANSISTOR		
	Q636	2SD1302(S,T)	TRANSISTOR		
	Q637	2SA952(L,K)	TRANSISTOR		
	Q638	2SD1302(S,T)	TRANSISTOR		
	Q639	2SA952(L,K)	TRANSISTOR		
	Q640	2SD1302(S,T)	TRANSISTOR		
	Q641	2SA952(L,K)	TRANSISTOR		
	Q642	2SD1302(S,T)	TRANSISTOR		
	Q643	2SA952(L,K)	TRANSISTOR		
	R501	QRD161J-224	C.RESISTOR		220K 5% 1/6W
	R502	QRD161J-184	C RESISTOR		180K 5% 1/6W
	R503	QRD161J-822	C.RESISTOR		8.2K 5% 1/6W

Δ	REF.	PARTS NO.	PARTS NAME		REMARKS
	R504	QRD161J-472	C.RESISTOR		4.7K 5% 1/6W
	R505	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R506	QRD161J-681	C.RESISTOR		680 5% 1/6W
	R507	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R508	QRD161J-333	C.RESISTOR		33K 5% 1/6W
	R509	QRD161J-222	C.RESISTOR		2.2K 5% 1/6W
	R510	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R511	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R512	QRD161J-123	C.RESISTOR		12K 5% 1/6W
	R513	QRD161J-682	C.RESISTOR		6.8K 5% 1/6W
	R514	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R515	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R516	QRD161J-682	C.RESISTOR		6.8K 5% 1/6W
	R517	QRD161J-822	C.RESISTOR		8.2K 5% 1/6W
	R519	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R520	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R521	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R522	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R523	QRD161J-562	C.RESISTOR		5.6K 5% 1/6W
	R524	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R525	QRD161J-683	C.RESISTOR		68K 5% 1/6W
	R526	QRD161J-682	C.RESISTOR		6.8K 5% 1/6W
	R527	QRD161J-564	C.RESISTOR		560K 5% 1/6W
	R528	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R531	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R532	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R533	QRD161J-393	C.RESISTOR		39K 5% 1/6W
	R534	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R536	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R537	QRD161J-183	C.RESISTOR		18K 5% 1/6W
	R538	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R539	QRD161J-333	C.RESISTOR		33K 5% 1/6W
	R540	QRD161J-682	C.RESISTOR		6.8K 5% 1/6W
	R541	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R542	QRD161J-273	C.RESISTOR		27K 5% 1/6W
	R543	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R544	QRD161J-182	C.RESISTOR		1.8K 5% 1/6W
	R545	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R546	QRD161J-104	C.RESISTOR		100K 5% 1/6W
	R547	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R548	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R549	QRD161J-181	C.RESISTOR		180 5% 1/6W
	R559	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R560	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R565	QRD161J-683	C.RESISTOR		68K 5% 1/6W
	R566	QRD161J-181	C.RESISTOR		180 5% 1/6W
	R570	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R573	QRD161J-183	C.RESISTOR		18K 5% 1/6W
	R587	QRD161J-102	C.RESISTOR		1.0K 5% 1/6W
	R588	QRD161J-103	C.RESISTOR		10K 5% 1/6W

△	REF.	PARTS NO.	PARTS NAME	REMARKS
	R589	QRD161J-104	C.RESISTOR	100K 5% 1/6W
	R590	QRD161J-183	C.RESISTOR	18K 5% 1/6W
	R591	QRD161J-122	C RESISTOR	1.2K 5% 1/6W
	R592	QRD161J-105	C RESISTOR	1.0M 5% 1/6W
	R593	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R594	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R595	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R596	QRD161J-100	C RESISTOR	10 5% 1/6W
	R597	QRD161J-820	C.RESISTOR	82 5% 1/6W
	R620	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R621	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R622	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R623	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R640	QRD161J-821	C RESISTOR	820 5% 1/6W
	R641	QRD161J-470	C RESISTOR	47 5% 1/6W
	R642	QRD161J-153	C.RESISTOR	15K 5% 1/6W
	R643	QRD161J-153	C.RESISTOR	15K 5% 1/6W
	R646	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R647	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R649	QRD161J-102	C.RESISTOR	1.0K 5% 1/6W
	R650	QRD161J-151	C RESISTOR	150 5% 1/6W
	R660	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R661	QRD161J-272	C.RESISTOR	2.7K 5% 1/6W
	R662	QRD161J-332	C.RESISTOR	3.3K 5% 1/6W
	R663	QRD161J-332	C.RESISTOR	3.3K 5% 1/6W
	R664	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R665	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R666	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R667	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R668	QRD161J-332	C.RESISTOR	3.3K 5% 1/6W
	R669	QRD161J-332	C.RESISTOR	3.3K 5% 1/6W
	R672	QRD161J-122	C RESISTOR	1.2K 5% 1/6W
	R673	QRD161J-122	C RESISTOR	1.2K 5% 1/6W
	R675	QRD161J-470	C RESISTOR	47 5% 1/6W
	R676	QRV141F-2702AY	CMF RESISTOR	27 1/4W
	R677	QRD161J-273	C RESISTOR	27K 5% 1/6W
	R678	QRV141F-1002AY	CMF RESISTOR	10 1/4W
	R679	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R680	QRD161J-470	C RESISTOR	47 5% 1/6W
	R681	QRV141F-2702AY	CMF RESISTOR	27 1/4W
	R682	QRV141F-1002AY	CMF RESISTOR	10 1/4W
	R683	QRD161J-470	C RESISTOR	47 5% 1/6W
	R684	QRV141F-2702AY	CMF RESISTOR	27 1/4W
	R685	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R686	QRV141F-1002AY	CMF RESISTOR	10 1/4W
	R687	QRD161J-473	C.RESISTOR	47K 5% 1/6W
	R688	QRD161J-473	C.RESISTOR	47K 5% 1/6W
	R689	QRD161J-103	C.RESISTOR	10K 5% 1/6W
	R690	QRD161J-470	C RESISTOR	47 5% 1/6W
	R691	QRD161J-273	C RESISTOR	27K 5% 1/6W

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	R692	QRD161J-563	C RESISTOR		56K 5% 1/6W
	R693	QRD161J-334	C.RESISTOR		330K 5% 1/6W
	R694	QRD161J-470	C RESISTOR		47 5% 1/6W
	R695	QRD161J-273	C RESISTOR		27K 5% 1/6W
	R696	QRD161J-223	C.RESISTOR		22K 5% 1/6W
	R697	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R698	QRD161J-183	C.RESISTOR		18K 5% 1/6W
	R699	QRD121J-2R2	C RESISTOR		2.2 5% 1/2W
	VR501	QVZ3523-104AZ	SEMI.V.RESISTOR		
	VR502	QVZ3523-203AZ	V RESISTOR		
	X601	VCX5016-934V	CRYSTAL		

■ CD Amplifier Board Parts List : Drawing No. VMW1220

△	REF.	PARTS NO.	PARTS NAME		REMARKS
	CN701	VMC0161-012	CONNECTOR		
	C701	QER61AM-107ZM	E CAPACITOR		100MF 20% 10V
	C702	QER41EM-475	E CAPACITOR		4.7MF 20% 25V
	D701	MA165	SI DIODE		
	D702	MA165	SI DIODE		
	D703	MA165	SI DIODE		
	D704	MA165	SI DIODE		
	D705	MA165	SI DIODE		
	D706	MA165	SI DIODE		
	D707	MA165	SI DIODE		
	D708	MA165	SI DIODE		
	D710	MA165	SI DIODE		
	D711	MA165	SI DIODE		
	D712	MA165	SI DIODE		
	IC701	MN158631JRR-2	IC		
	LCD02	VGL1086-001	LCD		
	Q701	2SA1175	TRANSISTOR		
	Q702	2SC1685(Q,R)	TRANSISTOR		
	Q703	2SC1685(Q,R)	TRANSISTOR		
	R701	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R702	QRD161J-332	C.RESISTOR		3.3K 5% 1/6W
	R703	QRD161J-153	C.RESISTOR		15K 5% 1/6W
	R704	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R705	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R706	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R707	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R708	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R709	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R710	QRD161J-473	C.RESISTOR		47K 5% 1/6W
	R711	QRD161J-103	C.RESISTOR		10K 5% 1/6W
	R713	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R714	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R715	QRD161J-152	C.RESISTOR		1.5K 5% 1/6W
	R716	QRD161J-272	C.RESISTOR		2.7K 5% 1/6W
	R717	QRD161J-272	C.RESISTOR		2.7K 5% 1/6W
	S701	QSP4H11-V05Z	TACT SWITCH		
	S702	QSP4H11-V05Z	TACT SWITCH		
	S703	QSP4H11-V05Z	TACT SWITCH		
	S704	QSP4H11-V05Z	TACT SWITCH		
	S705	QSP4H11-V05Z	TACT SWITCH		
	S706	QSP4H11-V05Z	TACT SWITCH		
	S707	QSP4H11-V05Z	TACT SWITCH		
	S708	QSP4H11-V05Z	TACT SWITCH		
	S710	QSP2K21-V01	PUSH SWITCH		
	X701	EFO-GC4194A4	CERAMIC RESONAT		

13 Exploded View of Cassette Mechanism Component Parts and Parts List

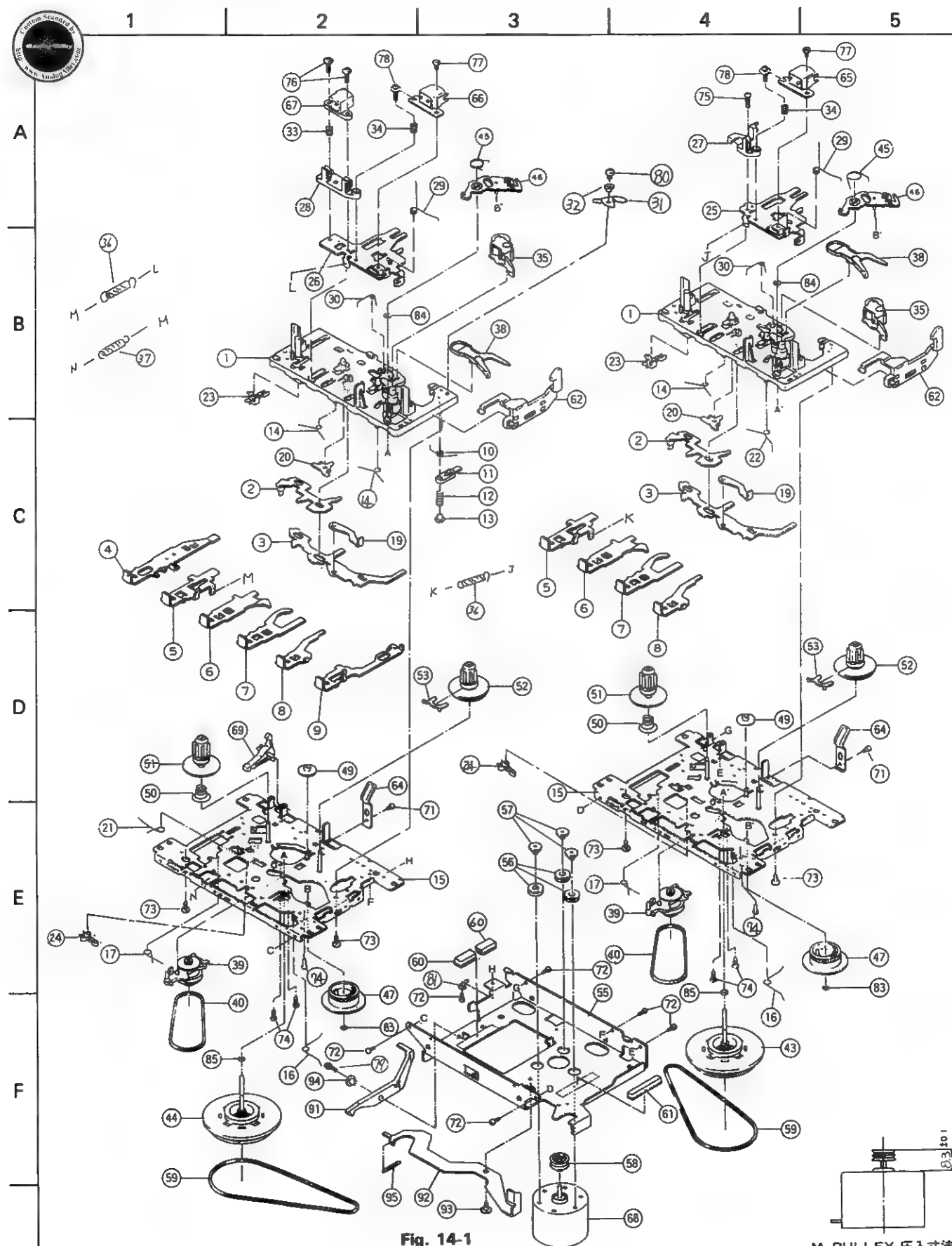


Fig. 14-1

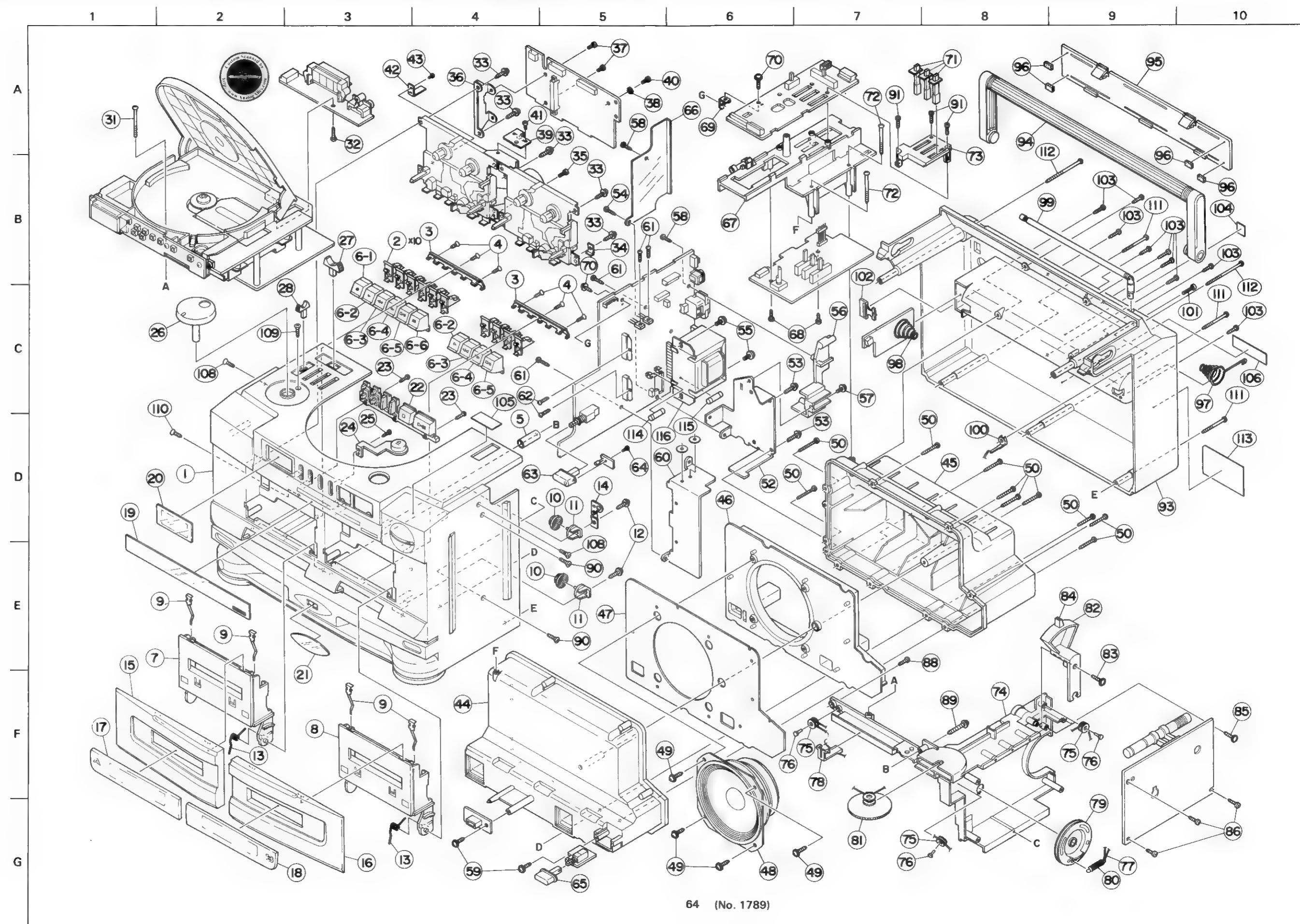
M PULLEY 压入寸法
1921-12-318-2

■ Cassette Mechanism Component Parts List

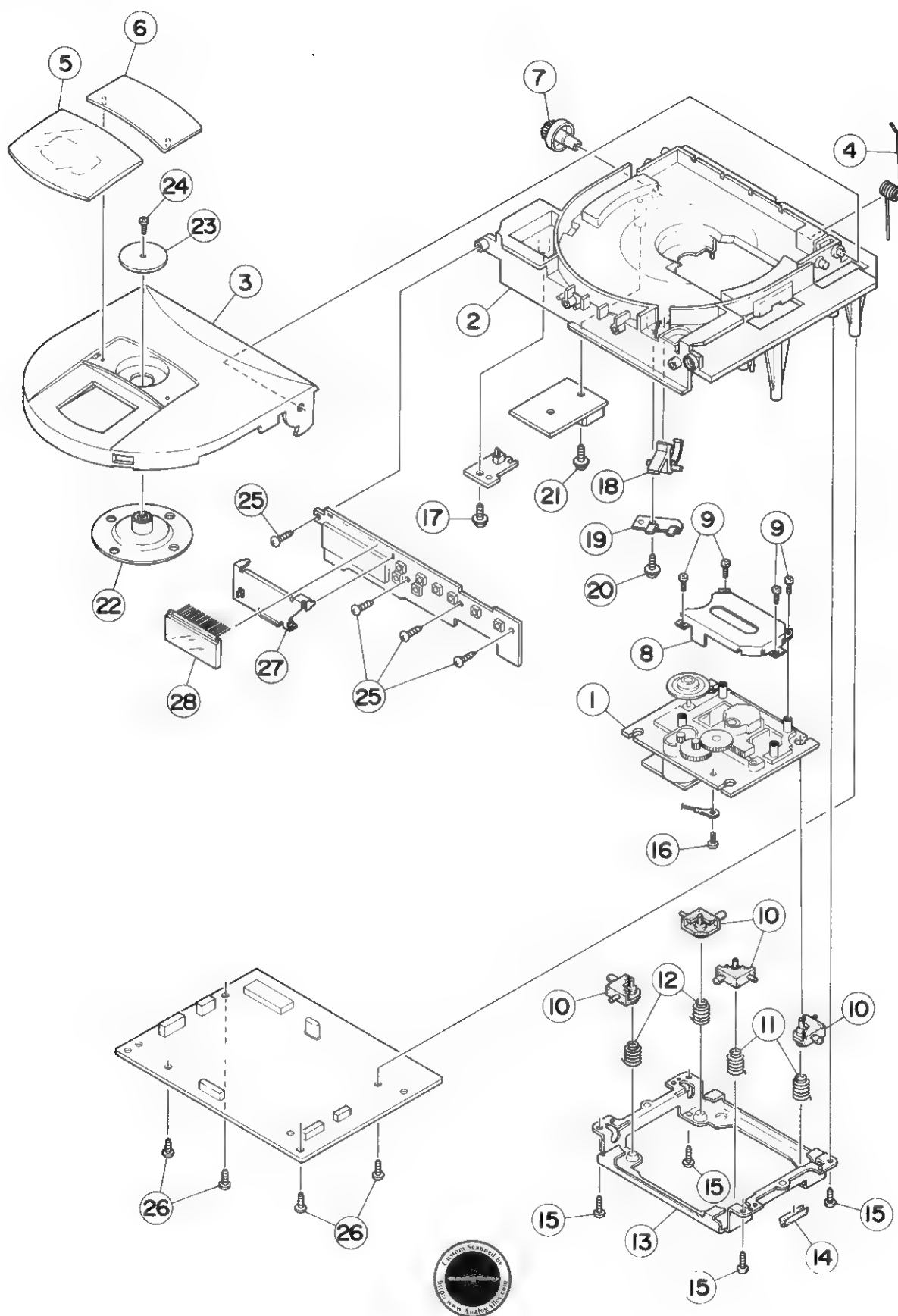
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1	192114301	BASE ASS'Y		2
	2	19211409	SWITCH ACTUATOR		2
	3	19211438	PUSH BUTTON ACTUATOR		2
	4	19211422	BUTTON LEVER	REC	1
	5	19211484	BUTTON LEVER	PLAY	2
	6	19211424	BUTTON LEVER	REW	2
	7	91211425	BUTTON LEVER	FF	2
	8	19211426	BUTTON LEVER	STOP	2
	9	19211461	BUTTON LEVER	PAUSE	1
	10	19211413	P CONTROL SPRING		1
	11	19211455	PAUSE LEVER (E)		1
	12	19211412	PAUSE LEVER SPRING		1
	13	19211411	PAUSE STOPPER		1
	14	19211414	BUTTON LEVER SPRING (A)		3
	15	192101501	CHASSIS ASS'Y		2
	16	19211416	E ACTUATOR SPRING		2
	17	19211417	P.S. LEVER SPRING		2
	19	182101159	E KICK LEVER		2
	20	19211420	P.R. STOPPER		2
	21	19211421	BUTTON LEVER SPRING	REC	1
	22	19211433	BUTTON LEVER SPRING (C)		1
	23	640101149	LEAF SWITCH	MSW-1541T	2
	24	640101161	LEAF SWITCH	MSW-17820MDVO	2
	25	19210311	HEAD PANEL		1
	26	19210312	HEAD PANEL		1
	27	19210304A	HEAD BASE		1
	28	19210306	HEAD BASE		1
	29	19210309	PANEL P SPRING		2
	30	19211418	M CONTROL SPRING		2
	31	19211437	P. ARM. COLLER		1
	32	19211434	P. ARM		1
	33	18210308	EH SPRING		1
	34	18210307	AZIMUTH SPRING		2
	35	192104306	PINCH ROLLER ARM ASS'Y		2
	36	18210150	BUTTON LEVER SPRING (S)	PLAY	2
	37	18211311	E. SLIDE LEVER SPREING		1
	38	19212604T	SENSING LEVER		2
	39	192107302	RF CLUTCH ASS'Y		2
	40	18210711	RF BELT		2
	43	192109310	FLYWHEEL ASS'Y		1
	44	192109309	FLYWHEEL ASS'Y		1
	45	19212605	GEAR PLATE SPRING		2
	46	192126502	GEAR PLATE ASS'Y		2
	47	19212602	CAM GEAR		2
	49	18211070	FF GEAR		2
	50	18291010	BACK TENSION SPRING		2
	51	192105304	SUPPLY REEL ASS'Y		2
	52	192105303	TAKE UP REEL ASS'Y		2
	53	19210506	SENER		2
	55	19211210	MOTOR BRACKET		1

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	56	18211266	MOTOR RUBBER		3
	57	18511418	MOTOR COLLER SCREW		3
	58	19211205A	MOTOR PULLEY		1
	59	19210906	MAIN BELT		2
	60	18211278	ANTI VIBRATION FELT MAT		2
	61	182112126	ANTI VIBRATION FELT MAT		1
	62	19211302	EJECT SLIDE LEVER		2
	64	18291001	PACK SPRING		2
	65	62020178	P. HEAD	VGH0421-020	1
	66	62020178	R.P. HEAD	VGH0421-020	1
	67	62021421	E. HEAD	LE15A-C1	1
	68	6003-02-26	MOTOR	SHU-9L53	1
	69	18211069	RECORD SAFETY LEVER		1
	71	91790000	C. TAPPING SCREW	M2x3	2
	72	91800000	C. TAPPING SCREW	M2x4	6
	73	96790000	P. TAPPING BING SCREW	M2x5	4
	74	99991809	TAPPING SCREW (FOR CAMERA)	M2x4.5	6
	75	90040000	SCREW	M2x6	1
	76	92230000	+ - CAP SCREW	M2x7.5	2
	77	91150000	+ BIND SCREW	M2x3	2
	78	99220000	AZIMUTH SCREW	M2x7	2
	79	91820000	C. TAPPING SCREW	M2x6	1
	80	99992041	P.S. TAPPING SCREW	M2x3	1
	81	94800000	LUG	3B)2.0	1
	83	94220000	P. WASHER CUT	1.2x3.8x0.3	2
	84	99990313	P. WASHER CUT	1.45x3.8x0.5	2
	85	97860000	P. WASHER	2x3.5x0.3	2
	91	19211209	P. KICK LEVER (B)		1
	92	182112154	P. KICK LEVER (A)		1
	94	18211265	COLLER (B)		1
	95	18211225	P. KICK LEVER SP		1

14 Exploded View of Enclosure Component Parts and Parts List (This PARTS LIST can be found in the page 68.)



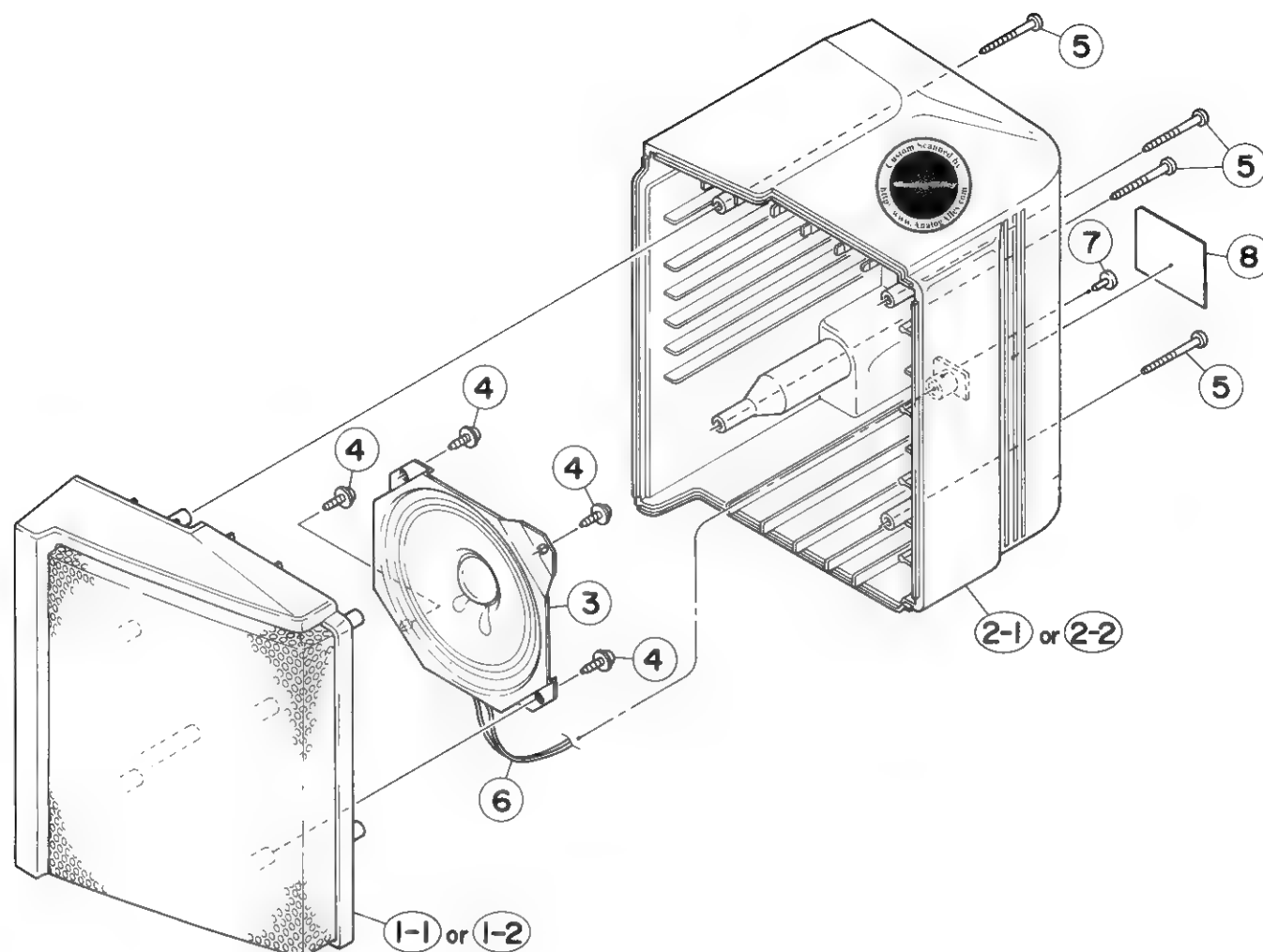
■ CD Player Section



■ CD Player Component Parts List

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1	KSM-150B-AJ-J	CD MECHA		1
	2	VJC1929-001	CD CASE		1
	3	VJT1033-001	CD DOOR		1
	4	VKW4921-001	CD DOOR SPRING		1
	5	VJD3854-001	CD LENS		1
	6	VJD3855-001	CD ORNAMENT		1
	7	VYH4769-002	GEAR		1
	8	VJD5091-003	PICK COVER		1
	9	SDSF2006M	SCREW		4
	10	VYH6596-001	CD CUSHION		4
	11	VKW4693-101	CONICAL SPRING		2
	12	VKW4693-102	CONICAL SPRING		2
	13	VYH6731-004	SUB CHASSIS		1
	14	VYSA1R4-095	SPACER		1
	15	SBSF3008Z	SCREW	CASE+SUS CHASSIS	4
	16	SDST2606Z	SCREW	EARTH	1
	17	SBSF3008Z	SCREW	LEAF SWITCH	1
	18	VYH7222-001	LOCK ARM	LOCK ARM	1
	19	VYH7223-001	BRACKET	LOCK ATM	1
	20	SBSF3008Z	SCREW	BRACKET	1
	21	SBSF3008Z	SCREW		1
	22	VYH6603-00A	CLAMPER ASS'Y		1
	23	VYH6517-001	CLAMPER PLATE		1
	24	SDSF2006M	SCREW		1
	25	SBSF3008Z	SCREW	CASE+PWB	4
	26	SBSF3008Z	SCREW	CD CASE+CD PWB	4
	27	VYH7225-002	LCD HOLDER		1
	28	VGL1086-001	LCD	LCD02	1

■ Speaker Box Section



■ Speaker Box Section Parts List

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1-1	VJC2375-00C	FRONT PANEL (R)	RIGHT SIDE	1
	1-2	VJC2374-00C	FRONT PANEL (L)	LEFT SIDE	1
	2-1	VJC1833-001	REAR CABINET	RIGHT SIDE	1
	2-2	VJC1831-001	REAR CABINET	LEFT SIDE	1
	3	EAS10P463C	SPEAKER		1
	4	GBSF3010Z	TAPPING SCREW	FRONT + SPEAKER	4
	5	SBSF3035Z	SCREW	FRONT + REAR	4
	6	VMP0040-001T	SPEAKER CODE	L, R	2
	7	TEP357469-02	STOPPER	L, R	2
	8	VYN7054-001B	NAME PLATE	L, R	2

⚠ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

■ Enclosure Component Parts List

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1, 19, 20,21 7,9,17 8,9,16	ZCRCX100J-FBK ZCRCX100K-CBKA ZCRCX100K-CBKB	FRONT CABINET ASS'Y CASSETTE CASE ASS'Y CASSETTE CASE ASS'Y		1 1 1
	1 2 3 4 5	VJC1924-001UL VKS4843-002 VKL5960-003 SSSF2608Z VYH7307-001	FRONT CABINET BUTTON LEVER BUTTON BRACKET SCREW JOINT BAR		1 10 2 6 1
	6-1 6-2 6-3 6-4 6-5	VXP3391-001 VXP3391-002 VXP3391-003 VXP3391-004 VXP3391-005	MECHA BUTTON MECHA BUTTON MECHA BUTTON MECHA BUTTON MECHA BUTTON	REC PLAY REW FF STOP/EJECT	1 2 2 2 2
	6-6 7 8 9 10	VXP3391-006 VJT2253-001 VJT2253-002 VKY4180-001 VYH5601-001	MECHA BUTTON C.HOLDER (A) C.HOLDER(B) CASSETTE SPRING GEAR	PAUSE	1 1 1 4 2
	11 12 13 14 15	VYH5602-001 GBSF3012Z VKW4926-001 VYH6768-001 VJD2356-001	DAMPER HOLDER SCREW DOOR SPRING SUPPORT BRACKET DOOR COVER(L)		2 2 2 1 1
	16 17 18 19 20	VJD2356-002 VJD3851-001 VJD3851-002 VJK3521-005 VJD5306-002	DOOR COVER(R) DOOR LENS(L) DOOR LENS(R) DIAL LENS LCD LENS		1 1 1 1 1
	21 22 23 24 25	VJD5307-002 VXP3393-001 SBSF2608Z VJD5308-001 SBSF2608Z	3D LENS CD BUTTON SCREW CD EJECT BUTTON SCREW	CD BUTTON EJECT BUTTON	1 1 2 1 1
	26 27 28 31 32	VXL4364-001 VXS4358-002 VXS4359-002 SBSF3030M SBSF3010Z	VOLUME KNOB SLIDE KNOB SLIDE KNOB SCREW SCREW	FUNCTION METAL/NORMAL	1 1 1 1 1
	33 34 35 36 37	GBSF3012Z VYH7318-002 SDST3006Z VYH7224-002 SDST3006Z	SCREW SUPPORT BKT SCREW REC BRACKET SCREW	MECHA+FRONT MECHA+SUPPORT BKT REC BKT+REC PWB	5 1 1 1 2
	38 39 40 41 42	WBS3000N VYH7065-001 SDST3006Z SDST2604Z VKY4617-001	WASHER BRACKET SCREW SCREW REC LEVER	REC EARTH BKT+REC PWB BKT+MECHA	1 1 1 1 1

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

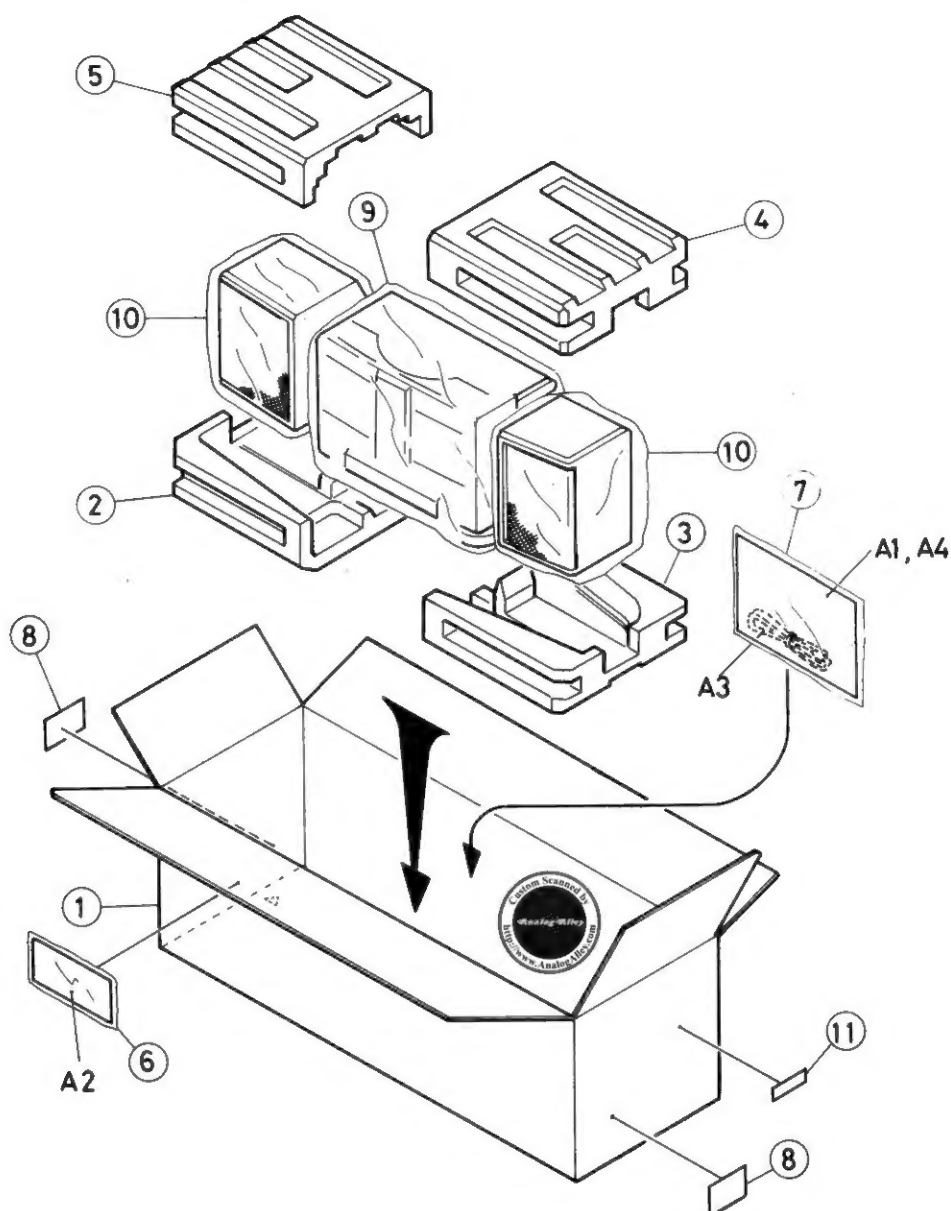
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	43	SDST2003Z	SCREW		1
	44	VYH1207-002	3D COVER(F)		1
	45	VYH1208-002	3D COVER(R)		1
	46	VYH2249-002	3D BASE		1
	47	VYH3594-001	SPACER		1
	48	EAS10PL429G1	SPEAKER		1
	49	GBSF3012Z	SCREW	SPEAKER	4
	50	SBSF3020Z	SCREW	3D(F)+3D(R)	8
		SBSF3020Z	SCREW	F.CABI+3D	2
	52	VYH3595-001	TRANS BRACKET		1
	53	GBSF3012Z	SCREW	T.BKT+3D	2
	54	SDST3006Z	SCREW		1
	55	VKZ3001-004	SPECIAL SCREW	T.BKT+TRANS	2
	56	VYH3641-001	AC HOLDER	3D(F)+3D PWB	1
	57	GBST3008Z	TH.TAP.SCREW		1
	58	SBSF3008Z	SCREW		2
	59	GBSF3010Z	TAPPING SCREW	3D(F)+PWB	2
△	60	VYH3596-001	HEAT SINK		1
	61	SBSF3008Z	SCREW	HEAT SINK	4
	62	SBSF2608Z	SCREW		2
	63	VXP4995-002	POWER KNOB	POWER	1
	64	SDSF2006M	SCREW		1
	65	VXP4996-002	3D KNOB	3D	1
	66	VYH7233-001	SHIELD		1
	67	VYH2250-001	AMP CHASSIS		1
	68	SBSF3008Z	SCREW	AMP CHA+PWB	2
	69	VYH4638-001	BRACKET		1
	70	LPSP3005Z	SCREW		2
	71	VXS4360-002	SLIDE KNOB	SEA	3
	72	SBSF3050Z	SCREW	3D+AMP.CHAS	2
	73	VYH7304-001	SEA HOLDER		1
	74	VYH1212-001	TUNER CHASSIS		1
	75	V40409-2	ROLLER		4
	76	VYH4034-003	STUD		4
	77	VHR22K9-05AT	DIAL STRING		0
	78	VJN4137-001	NEEDLE		1
	79	VYH7238-001	DIAL DRUM		1
	80	50153-3	SPRING		1
	81	VXL4259-002	TUNING KNOB		1
	82	VYH3598-001	BAND LEVER		1
	83	GBSF3012Z	SCREW	BAND LEVER	1
	84	VXQ4061-002	LEVER CAP	BAND LEVER	1
	85	GBSF3012Z	SCREW	T.CHA+T.PWB	1
	86	SBSF3010Z	SCREW		3
	88	SBSF3010Z	SCREW	T.CHA+F.CABI	1
	89	SBSF3020Z	SCREW		1
	90	SSSF3012M	T. SCREW	T.CHA+F.CABI	2
	91	SBSF2610Z	SCREW		3
	93	VJC1925-001UL	REAR CABINET		1

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⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	94	VJH4092-00K	HANDLE ASS'Y		1
	95	VJC2016-008	BATTERY COVER		1
	96	VYSH101-015	SPACER		4
	97	VYH5657-001	BATTERY SPRING		1
	98	VYH5483-001	BATTERY SPRING	BATT.PWB	1
	99	VJA3006-00E	ROD ANTENNA		1
	100	VYH5012-004	TERMINAL LUG		1
	101	SDSP3012N	SCREW	ANTENNA	1
	102	VYH7232-003	AC SLIDER	PC-X100J/U	1
	103	SBSF3012N	SCREW	SP TERMINAL	2
		SBSF3012N	SCREW	CD OUT	1
		SBSF3012N	SCREW	CD CASE+REAR	2
		SBSF3012N	SCREW	REAR+3D	2
		SBSF3012N	SCREW	3D+REAR	2
	104	VND4887-001	CAUTION LABEL		1
	105	VND4317-002	CAUTION SEAL		1
	106	VND4285-001	CAUTION LABEL		1
		VND4285-002	CAUTION LABEL		1
		VND4285-003	CAUTION LABEL		1
		VND4285-006	CAUTION LABEL		1
	108	SSSF3012M	T. SCREW	FRONT	2
	109	SSSF3012M	T. SCREW		1
	110	SSST3008M	SCREW	F.CABI+T.BKR	1
	111	SBSF3040Z	SCREW	FRONT+REAR	3
	112	SDSF3065Z	SCREW	FRONT+REAR	2
	113	VYN7054-001	NAME PLATE		1
	114	QMF0007-5R0J1	FUSE	F998	1
	115	QMF51N2-R60J1	FUSE	F999	1
⚠	116	VTP57P2-12B	POWER TRANS.	T999	1

15 Illustration Packing and Packing Parts List



Packing Parts List

△	REF.	PARTS NO.	PARTS NAME	REMARKS	Q'TY
	1	VPC7054-001	CARTON		1
	2	VPH1523-001	CUSHION	FOR BOTTOM : L	1
	3	VPH1523-002	CUSHION	FOR BOTTOM : R	1
	4	VPH1524-001	CUSHION	FOR UPPER : R	1
	5	VPH1524-002	CUSHION	FOR UPPER : L	1
	6	E66416-003	ENVELOPE	FOR WARRANTY CARD	1
	7	VPE3005-004	POLY BAG	FOR INSTRUCTIONS	1
	8	VND3044-002	SERIAL TICKET		2
	9	VPE3005-026	POLY BAG	FOR UNIT	1
	10	VPE3005-018	POLY BAG	FOR SPEAKER	2
	11	VND3070-008	UPC CODE LABEL		1
	12	VPK4002-016	SHEET		1

16 Accessories

⚠ parts are safety assurance parts.

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⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	Q'TY
	A1	VNN7054-611	INSTRUCTION BOOK		1
	A2	BT-20047D	WARRANTY CARD		1
		BT-20108A	WARRANTY CARD		1
⚠	A3	QMP1240-183	POWER CORD		1
	A4	BT-20044F	SAFETY INSTRUCTION		1

JVC

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